

Transmitted Via Overnight Delivery

GE 159 Plastics Avenue Pittsfield, MA 01201 USA

March 28, 2007

Dean Tagliaferro EPA Project Coordinator U.S. Environmental Protection Agency c/o Weston Solutions 10 Lyman Street Pittsfield, MA 01201

Re: GE-Pittsfield/Housatonic River Site

Floodplain Residential and Non-Residential Properties Adjacent to 1½ Mile Reach of Housatonic River (GECD710 and GECD720)

Revised Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties

Dear Mr. Tagliaferro:

In accordance with EPA's letter of March 8, 2007, providing conditional approval for GE's Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties Adjacent to the 1½ Mile Reach of Housatonic River (dated December 2006), enclosed is GE's Revised Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties Adjacent to the 1½ Mile Reach of Housatonic River. This revised document provides revised evaluations for four properties within Phase 2 of the 1½ Mile Floodplain Properties – namely, Parcels I8-4-201/202, Parcels I8-4-2, -3, -4, Parcel I8-4-6, and the non-bank portion of Parcel I8-4-7. It also provides a revised soil remediation proposal covering three of those properties (Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7), and contains other revisions to address the conditions in EPA's March 8, 2007 letter.

Please contact me if you have any questions or comments regarding this revised addendum.

Sincerely,

Richard W. Gates

Remediation Project Manager

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Enclosure

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cc: Timothy Conway, EPA
Rose Howell, EPA*
Holly Inglis, EPA
K.C. Mitkevicius, USACE (CD-ROM)
Linda Palmieri, Weston (CD-ROM)
Susan Steenstrup, MDEP (2 copies)
Anna Symington, MDEP*
Jane Rothchild, MDEP*
Nancy E. Harper, MA AG*
Dale Young, MA EOEA*
Mayor James Ruberto, City of Pittsfield
Jeffrey Bernstein, Bernstein, Cushner & Kimmel

Michael Carroll, GE*
Andrew Silfer, GE
Rod McLaren, GE*
James Nuss, ARCADIS BBL
James Bieke, Goodwin Procter
Property Owner – Parcels I8-4-202 & -202
Property Owner – Parcels I8-4-6
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Revised Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties Adjacent to the 1 ½ Mile Reach of Housatonic River

General Electric Company Pittsfield, Massachusetts

March 2007



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1. Introduction

1.1 General

On October 27, 2000, a Consent Decree (CD) executed in 1999 by the General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and several other government agencies was entered by the United States District Court for the District of Massachusetts. The CD requires (among other things) the performance of Removal Actions to address polychlorinated biphenyls (PCBs) and other hazardous constituents present in soil, sediment, and groundwater at several Removal Action Areas (RAAs). Two of these RAAs encompass properties located in whole or in part within the floodplain of the Housatonic River adjacent to the 1½ Mile Reach of the River: (1) Floodplain Current Residential Properties Adjacent to the 1½ Mile Reach (Excluding Banks). These RAAs are jointly referred to as the 1½ Mile Floodplain RAAs. They were divided into the following four phases for investigation, evaluation, and remediation purposes, to allow for coordination with EPA's response actions for the river sediments and riverbank soils as part of the 1½ Mile Reach Removal Action:

Phase 1 - Lyman Street Bridge to Elm Street Bridge;

Phase 2 - Elm Street Bridge to Dawes Avenue;

Phase 3 - Dawes Avenue to Pomeroy Avenue; and

Phase 4 - Pomeroy Avenue to the Confluence.

This document relates to the floodplain properties in Phase 2 (shown on Figures 1 and 2). In January 2004, GE submitted to EPA a document titled *Pre-Design Investigation/Soil Evaluation Report and Conceptual Removal Design/Removal Action Work Plan for Phase 2 Floodplain Properties Adjacent to the 1½ Mile Reach of Housatonic River* (Phase 2 Investigation/Evaluation Report). That report (1) summarized the results of soil investigations conducted at the Phase 2 floodplain properties, (2) presented an evaluation of the available data on polychlorinated biphenyls (PCBs) in soil at those properties relative to the applicable soil-related Performance Standards established in the CD and accompanying *Statement of Work for Removal Actions Outside the River* (SOW), (3) presented an evaluation of the data on non-PCB constituents at certain of those properties, and (4) contained an overall assessment of the need for further response actions. The Phase 2 Investigation/Evaluation Report concluded that no remediation or other additional response actions were necessary at the Phase 2 floodplain properties to meet the applicable Performance Standards under the CD, and

it noted that GE would discuss with EPA the appropriate timing for submitting a Final Completion Report for these properties. EPA approved the Phase 2 Investigation/Evaluation Report in a letter to GE dated March 9, 2004.

During the course of preparing a Final Completion Report for the Phase 2 floodplain properties, GE identified the need for revised evaluations at three Phase 2 properties: (1) Parcels I8-4-201/202 (which together were formerly Parcel I8-4-5 and are owned by the same person [individually or as trustee] and have thus been evaluated as a single property); (2) Parcels I8-4-2, -3, -4 (which comprise one commonly owned property); and (3) the non-bank portion of Parcel I8-4-7. Further, based on those revised evaluations, GE identified the need for soil remediation at two of these properties – Parcels I8-4-201/202 and Parcels I8-4-2, -3, -4. Accordingly, GE submitted a document titled Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties Adjacent to the 1½ Mile Reach of Housatonic River (Phase 2 RD/RA Work Plan Addendum) to EPA on December 13, 2006. That document presented the bases for the above determinations, described the soil remediation actions proposed for Parcels I8-4-201/202 and I8-4-2, -3, -4, and provided design and implementation information for the performance of those remediation actions.

EPA provided conditional approval of the Phase 2 RD/RA Work Plan Addendum in a letter to GE dated March 8, 2007. In that letter, EPA directed GE to: (1) revise the prior Removal Design/Removal Action (RD/RA) evaluations for Parcels I8-4-6 and I8-4-201/202 based on a modification made by EPA to the boundary between the 1½ Mile Floodplain RAAs and the 1½ Mile Reach of the River; (2) conduct certain additional soil removals at Parcels I8-4-201/202; (3) consider expanding the soil removal areas on that parcel and Parcels I8-4-2, -3, -4, and I8-4-7 based on constructability and related factors; (4) include an inventory of trees and shrubs located within the general work areas in a forthcoming Supplemental Information Package; (5) make certain revisions to the text of Sections 6.3.1 and 6.3.2; and (6) provide schedules for certain upcoming activities. EPA also directed GE to submit a *Revised Supplemental Soil Evaluation Report and Removal Design/Removal Action Work Plan Addendum for Selected Phase 2 Floodplain Properties Adjacent to the 1½ Mile Reach of Housatonic River* (Revised Phase 2 RD/RA Work Plan Addendum) to address the above conditions. This document constitutes that Revised Phase 2 RD/RA Work Plan Addendum.

1.2 Description of Phase 2 Floodplain Properties

Phase 2 properties in the 1½ Mile Floodplain RAAs consist of several contiguous properties located along the north side of the Housatonic River between the Elm Street Bridge and Dawes Avenue (Figure 1). These include Parcel I8-4-6, Parcels I8-4-201/202, Parcels I8-4-2, -3, -4, Parcel I8-4-101 (formerly Parcel I8-4-1), and the non-bank portion of Parcel I8-4-7 (Figure 2). All properties within this group are considered residential except for Parcel I8-4-7, which is an undeveloped property considered to be in recreational use and is now owned by the City of Pittsfield.

Some of the properties included in Phase 2 were previously subject to response actions to address PCB-containing soils. Specifically, Parcels I8-4-2, -3, -4 and I8-4-101 were previously subject to soil removal activities as Immediate Response Actions (IRAs) under the Massachusetts Contingency Plan (MCP), and Response Action Outcome (RAO) Statements for these properties were submitted to MDEP and EPA on February 1, 1999 for Parcels I8-4-2, -3, -4 and on October 1, 1998 for Parcel I8-4-101. Activities associated with these removals were summarized in documents titled *Immediate Response Action Completion Report for Parcel I8-4-2*, -3, -4 (February 1999) and *Immediate Response Action Completion Report for Parcel I8-4-1* (September 1998). In addition, GE conducted a large soil removal and bank stabilization project at Parcel I8-4-7, which resulted in the removal and off-site disposal of soils generally associated with the uppermost 3 feet of that property.

1.3 Bases for Revised Evaluations

In the course of preparing a Final Completion Report for the Phase 2 floodplain properties, GE identified a number of facts which warranted revised RD/RA evaluations for PCBs for certain of these properties. First, GE observed that the boundary dividing Parcels I8-4-2, -3, -4 and I8-4-201/202 from Parcel I8-4-7 as depicted in the Phase 2 Investigation/Evaluation Report for Parcels I8-4-2, -3, -4. The boundary depicted in the Phase 2 Investigation/Evaluation Report was much closer to the river than shown in the IRA Completion Report. To resolve this issue, GE reviewed the information provided by Hill Engineers, Architects, Planners in January 1996 (which formed the basis for the IRA Completion Report boundary), City of Pittsfield tax assessors' maps, and information from EPA's Phase 2 database, provided by EPA's consultants at Weston Solutions. All these sources indicate that the actual boundary between these properties is very similar to that shown in the IRA Completion Report, rather than that shown in the Phase 2 Investigation/Evaluation Report. Due to this change from the Phase 2

Investigation/Evaluation Report, revised RD/RA evaluations were necessary for these properties using the

revised property boundaries.

Second, in reviewing the sampling data, GE identified certain sample locations on or affecting Parcels I8-4-

201/202 and I8-4-2, -3, -4 in which PCB concentrations in samples collected from the top foot of unpaved soil

exceeded the applicable not-to-exceed (NTE) level of 10 parts per million (ppm) for residential properties.

Although these results were presented in the Phase 2 Investigation/Evaluation Report, they were inadvertently

not identified in the NTE evaluations in that report. These instances, described in more detail in Sections 2.2

and 2.3 below, warranted a revision of the evaluations of these properties to take account of these NTE

exceedances and to propose soil removal to address them.

In addition, as noted above, EPA's conditional approval letter of March 8, 2007 required further evaluations of

Parcels I8-4-6 and I8-4-201/202 due to EPA's modification of the RAA boundary in the area of those properties,

and it required additional soil removal at Parcels I8-4-201/202, as well as consideration of expanding the soil

removal areas on that and other parcels. These conditions also require revised evaluations and a revised soil

remediation proposal.

The revised RD/RA evaluations and GE's revised soil remediation proposal are presented in this Revised Phase

2 RD/RA Work Plan Addendum. These revised evaluations pertain only to PCBs, as the non-PCB data from the

Phase 2 floodplain properties are limited, and none of the above factors affects GE's prior conclusion, presented

in the Phase 2 Investigation/Evaluation Report and approved by EPA on March 9, 2004, that there is no need for

additional sampling or evaluation for non-PCB constituents at these properties.

The revised parcel boundaries based on GE's review of the information described in the first paragraph of this

section, as well as the revised RAA boundary specified by EPA in its March 8, 2007 letter, are shown on Figure

3 (relative to the prior boundaries), and have been incorporated in all figures in this document.

Format of Document

The remainder of this document is presented in six sections. The title and a brief overview of each section are

presented below:

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1-4

Section 2 – Revised PCB Soil Evaluations and Proposed Remediation Activities, presents the results of the

revised PCB evaluations conducted for Parcels I8-4-201/202, Parcels I8-4-2, -3, -4, Parcel I8-4-6, and Parcel I8-

4-7 (non-bank portion) to determine the need for remediation to achieve the applicable Performance Standards.

Where necessary, the proposed remediation actions (i.e., soil removal/replacement) are then described and

depicted on figures and technical drawings. Further, for properties where remediation is necessary to address

PCBs in soil, this section presents evaluations of post-remediation conditions to demonstrate that the proposed

remediation will achieve the applicable PCB Performance Standards.

Section 3 – Design Information, describes additional design-related information associated with the

remediation activities identified in Section 2. Such information includes technical plans, specifications, and

drawings; information regarding performance of soil removal activities; an evaluation of potential impacts to the

flood storage capacity in this area; identification of site-specific Applicable or Relevant and Appropriate

Requirements (ARARs); and a description of the procedures to be implemented to ensure attainment of those

ARARs.

Section 4 – Contractor Selection, discusses the process for selecting the Remediation Contractor.

Section 5 – Implementation Plan, discusses certain site-specific implementation components, including

identification of the project participants, Remediation Contractor submittal requirements, project-specific site

preparation and construction-related components, and the perimeter air monitoring activities proposed during

the performance of the remediation activities.

Section 6 - Post-Construction Activities, identifies the various activities to be performed following

implementation of the remediation, including project close-out activities (e.g., pre-certification inspection and

preparation of a Final Completion Report) and Post-Removal Site Control activities.

Section 7 – Schedule, identifies the anticipated schedule for: (a) selection of a Remediation Contractor, (b)

submittal of a Supplemental Information Package; (c) initiation of the proposed remediation actions; and (d)

submission of draft Final Completion Reports for the 11/2 Mile Floodplain Residential and Non-Residential

Properties.

The discussions in the sections listed above are supported by various figures and appendices included in this

document.

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2. Revised PCB Soil Evaluations and Proposed Remediation

2.1 General

This section presents the results of the revised PCB evaluations that were performed for Parcels I8-4-201/202, I8-4-2, -3, -4, I8-4-6, and I8-4-7. Revisions to these evaluations were necessary due to one or more of the factors identified in Section 1.3 above. These revised evaluations were developed using the same PCB evaluation procedures and Performance Standards previously summarized in the Phase 2 Investigation/Evaluation Report. As further described below, these evaluations have identified the need for soil removal/replacement actions at Parcels I8-4-201/202 and I8-4-2, -3, -4, but no need for soil removal at Parcels I8-4-6 and I8-4-7. However, as described in Section 2.5, GE has elected to conduct soil removal within Parcel I8-4-7 based on constructability and related factors. In addition, after review of the prior evaluations and available site sampling data and mapping, GE has determined that evaluation of Parcel I8-4-101 does not require revision. That property is therefore not discussed further in this document.

In support of the revised evaluations presented in this section, GE has prepared backup documentation. Specifically, spatial averaging tables and Theissen polygon maps developed in support of the evaluations are presented in Appendix A. The proposed soil remediation activities are depicted on figures and on Technical Drawings provided in Appendix B.

2.2 Revised Evaluation and Proposal for Parcels I8-4-201/202

Section 3.4.2 of the Phase 2 Investigation/Evaluation Report summarized the results of the PCB evaluations for Parcels I8-4-201/202. That section reported that the existing spatial average PCB concentrations for soils in the 0- to 1-foot depth increment and the greater than 1-foot depth increment (to a depth of 7 feet, below which PCBs were not detected) were 1.08 ppm and 0.74 ppm, respectively, each of which is below the 2 ppm PCB Performance Standard for residential properties. With respect to the applicable PCB NTE level of 10 ppm for residential properties greater than 0.25 acre (Parcels I8-4-201/202 are approximately 0.54 acre), the report indicated that the maximum discrete PCB concentration in the top foot of unpaved soil at this property was 6.1 ppm, which is below the NTE level. It also noted, however, that four surface samples collected from the riverbank at or adjacent to this property (samples 2-SS-8, 2-SS-12, I8-4-7-15, and I8-4-7-22) contained PCB

concentrations that would exceed that NTE level. The first two of these samples were collected from the upper portion of the bank and the other two were collected from an adjacent property (Parcel I8-4-7), but all four had polygons extending slightly into the Actual/Potential Lawn portion of Parcel I8-4-201/202. To be conservative, GE included these sample results in the calculation of the spatial averages. However, for NTE purposes, the report stated that, given the location of these samples on the banks, the similar PCB levels detected in other nearby bank samples, and the low levels of PCBs detected in non-bank areas in the immediate vicinity of these samples, the presence of these elevated PCB levels appears to be limited to the bank portions of the property, which would to be addressed by EPA as part of the 1½ Mile Reach Removal Action. For these reasons, GE concluded that the PCB Performance Standards were achieved under existing conditions and that no remediation was necessary at the non-bank portion of this property.

EPA conditionally approved the Phase 2 Investigation/Evaluation Report in a letter to GE dated March 9, 2004. However, based on further consideration by the Agency, EPA's March 8, 2007 conditional approval letter directed GE (in Condition No. 2) to remove the top foot of soil in the portions of the polygons on the Actual/Potential Lawn portion of this property that are associated with samples 2-SS-8, 2-SS-12, and I8-4-7-15. (Due to revised property boundaries for this property, the above-referenced sample location I8-4-7-22 no longer has a polygon extending onto this property.)

In addition, during preparation of a Final Completion Report, GE identified two additional sample locations on Parcels I8-4-201/202 in which PCB concentrations exceeding 10 ppm were detected in one or more samples from the top foot of unpaved soil outside the limits of EPA's 1½ Mile Reach Removal Action. Specifically, at location I8-4-5-4, PCBs were detected at 11.4 ppm (12.7 ppm in a duplicate sample) in the 0- to 0.5-foot depth sample and at 10.7 ppm in the 0.5- to 1-foot depth sample. In addition, at location I8-4-5-8, PCBs were detected at 11.3 ppm (17.7 ppm in a duplicate sample) in the 0- to 0.5-foot depth sample, although only at 1.37 ppm in the 0.5- to 1-foot depth sample. These sample locations are shown on Figure 4. Although these results were presented in the Phase 2 Investigation/Evaluation Report and were included in the PCB spatial average calculations contained in Appendix D and summarized in Section 3.4.2 of that report, they were inadvertently not identified in the NTE evaluation.

In these circumstances, since the PCB data from location I8-4-5-4 show an average concentration greater than the 10 ppm NTE level in the top foot of unpaved soil, GE has determined that the top foot of soil associated with this location will need to be removed and replaced to achieve the PCB Performance Standards at this property. At location I8-4-5-8, the average PCB concentration in the top foot (based on combining the data from the 0- to

0.5-foot and 0.5- to 1-foot depth increments) is 7.94 ppm, which does not exceed the NTE level. Nevertheless, GE proposes to remove and replace the top foot of soil associated with this location as well. In addition, GE will remove and replace the top foot of soil associated with sample locations 2-SS-8, 2-SS-12, and I8-4-7-15 within the Actual/Potential Lawn portion of this property, as required by EPA's March 8, 2007 conditional approval letter. Further, as suggested in Condition No. 3.a of that letter, GE has elected to remove the portion of the polygon on this property that is associated with sample location I8-4-7-22 (situated on Parcel I8-4-7) to a depth of 2.5 feet, although that removal is not necessary to achieve the PCB Performance Standards. The proposed soil removal areas on this property are shown on Figure 4. The total estimated soil removal volume associated with these activities is approximately 25 cubic yards (cy).

The revised calculations of spatial average PCB concentrations at Parcels I8-4-201/202, both under existing conditions and after the proposed remediation, are presented in Appendix A (Tables A-1 through A-4 and Figures A-1 through A-9). These evaluations have been updated to use the revised boundary provided by EPA in its March 8, 2007 conditional approval letter and to reflect the above-referenced additional removals. Although the spatial average PCB concentrations at this property are already below the applicable 2 ppm Performance Standard, the proposed soil removal/replacement will further reduce the average concentration in the top foot of soil at this property, as indicated in the table below.

Depth Increment (ft)	Performance Standard (ppm)	Existing PCB Spatial Average (ppm)	Post-Remediation PCB Spatial Average (ppm)
0 – 1	2	1.16	0.53
1 – X [X=7]	2	0.72	0.45

In addition, as indicated on Table A-3 in Appendix A, the maximum PCB concentration in the 0- to 1-foot depth increment following the performance of the remediation activities will be 7.55 ppm, which does not exceed the applicable NTE level for residential properties. Thus, the proposed remediation at this property will address the exceedances of the NTE level and achieve the applicable PCB Performance Standards within the relevant depth increments.

2.3 Revised Evaluation and Proposal for Parcels 18-4-2, -3, -4

Section 3.5.1 of the Phase 2 Investigation/Evaluation Report addressed jointly owned Parcels I8-4-2, -3, -4. As explained in that section and noted above, GE had previously performed remediation at this property in

December 1995 as an IRA under the MCP. That IRA involved the removal of approximately 250 cy of soil at depths ranging between 1 and 4 feet below ground surface (bgs), and was described in the IRA Completion Report for that property. The IRA Completion Report also presented an evaluation of post-remediation conditions to confirm that a condition of No Significant Risk and a Permanent Solution had been achieved in accordance with the MCP. That evaluation indicated that the post-remediation spatial average PCB concentrations were 0.35 ppm and 0.81 ppm in the 0- to 1-foot and greater than 1-foot depth increments (to a depth of 5 feet, below which PCBs were not detected), respectively. In addition, that report stated that the maximum discrete post-remediation PCB concentration within the 0- to 1-foot depth increment at the property was 0.745 ppm.

This information was also included in the Phase 2 Investigation/Evaluation Report. That report then noted that, as part of the pre-design sampling under the CD, six samples were collected by GE from three locations on this property at depths below the IRA removal limits, and that the maximum PCB concentration in those samples was 0.097 ppm. Based on these pre-design results along with the post-remediation evaluation presented in the IRA Completion Report, it was concluded that the applicable PCB Performance Standards for residential properties under the CD were achieved under existing conditions at Parcels I8-4-2, -3, -4, and that no further response actions were necessary to address PCBs at this property. (That report also concluded, based on limited non-PCB data from this property, that there was no need for further sampling or evaluation for non-PCB constituents at the property.)

However, separate from the sampling conducted by GE, EPA conducted PCB sampling and analysis activities within and adjacent to Parcels I8-4-2, -3, -4 in May 1999, subsequent to the submittal of the IRA Completion Report. Although the data from these EPA sampling activities were presented on Figure 4 of the Phase 2 Investigation/Evaluation Report, they were not specifically considered in the evaluation presented in that report, since they "fell between the cracks" of the IRA Completion Report and the pre-design data collected by GE under the CD. Review of these EPA PCB data indicates one sample location on adjacent Parcel I8-4-7, location R93B125, which had PCB concentrations in excess of the residential NTE level and which has a polygon extending onto Parcels I8-4-2, -3, -4. The samples collected by EPA from the top foot at that location showed estimated concentrations of 27 ppm and 76 ppm in the 0- to 0.5-foot and 0.5- to 1-foot depth increments, respectively (Figure 5). In this situation, GE proposes to remove the top foot of soil on Parcels I8-4-2, -3, -4 that falls within the polygon associated with sample location R93B125 in order to meet the residential NTE level on that property.

GE has re-evaluated Parcels I8-4-2, -3, -4, taking into account the revised property boundaries as well as EPA PCB data collected following submittal of the IRA Completion Report. During the course of these evaluations, it was noted that two 0- to 1-foot sample locations removed as part of the IRA, which had PCB concentrations exceeding the residential NTE level of 10 ppm, have polygons that extend slightly beyond the removal limits presented in the IRA Completion Report. Specifically, PCBs were detected at sample location I8-4-2,3,4-9 at 31.2 ppm and 75.5 ppm in the 0- to 0.5-foot and 0.5- to 1-foot depth increments, respectively, and at sample location I8-4-2,3,4-12 at 15.3 ppm (23.9 ppm in a duplicate sample) and 1.32 ppm in the 0- to 0.5-foot and 0.5- to 1-foot depth increments, respectively (Figure 5). Since these sample locations have polygons extending slightly beyond the prior removal limits, GE proposes to remove and replace the top foot of soils associated with these sample locations that extend beyond the removal limits presented in the IRA Completion Report.

In addition, as suggested in Condition No. 3.b of EPA's March 8, 2007 conditional approval letter, GE has elected to remove the soils on this property associated with samples I8-4-2,3,4-9 and R93B125 to a depth of 1.5 feet, although such removals are not necessary to achieve the PCB Performance Standards.

The proposed soil removal areas on this property are shown on Figure 5. The total estimated soil removal volume associated with these activities is approximately 25 cy.

GE previously calculated post-remediation PCB concentrations for this property taking into account the required soil removals in the top foot. Those concentrations were presented in GE's December 2006 Phase 2 RD/RA Work Plan Addendum. Since those calculations demonstrated that the applicable PCB Performance Standards would be achieved through such removals, GE has not re-calculated the post-remediation PCB concentrations to take account of the additional, elective soil removals to 1.5 feet (described above), which will only further reduce the spatial average concentrations. The calculations of spatial average PCB concentrations at Parcels I8-4-2, -3, -4, both under existing conditions and after the proposed remediation (excluding the above-referenced elective removals), are presented in Appendix A (Tables A-5 through A-7 and Figures A-10 through A-17). These PCB evaluations show the following spatial average PCB concentrations:

Depth Increment (ft)	Performance Standard (ppm)	Existing PCB Spatial Average (ppm)	Post-Remediation PCB Spatial Average (ppm) 1
0 - 1	2	2.14	0.86
1 – X [X=5]	2	1.63	1.63

Note:

In addition, as indicated on Table A-7 in Appendix A, the maximum PCB concentration in the 0- to 1-foot depth increment following the performance of the remediation activities will be 10 ppm, which does not exceed the applicable NTE level for residential properties. Thus, the proposed remediation activities at this property will address the exceedances of the NTE level and achieve the applicable PCB Performance Standards within the relevant depth increments.

2.4 Revised Evaluation for Parcel I8-4-6

Section 3.4.1 of the Phase 2 Investigation/Evaluation Report addressed Parcel I8-4-6. As explained in that section, remediation actions to address PCBs were not necessary since the applicable Performance Standards were satisfied under existing conditions at this parcel. Specifically, spatial average PCB concentrations were below 2 ppm in the 0- to 1-foot depth increment and the greater than 1 foot depth increment (1 to 2 feet, since PCBs were not detected below 2 feet), and there is no applicable NTE level because the Actual/Potential Lawn at this property is less than 0.25 acre. As required by Condition No. 1 of EPA's March 8, 2007 conditional approval letter, GE has revised the previous evaluation of this property to reflect EPA's modification to the RAA boundary at this property. The existing PCB data from or affecting this property are shown on Figure 6.

The revised calculations of spatial average PCB concentrations at Parcel I8-4-6 are presented in Appendix A (Tables A-8 and A-9 and Figures A-18 and A-19). Similar to the results previously presented, these calculations demonstrate that remediation to address PCBs is not necessary at this property to meet the applicable Performance Standards, as indicated in the table below.

^{1.} Excluding the additional, elective soil removals to 1.5 feet described above.

Depth Increment (ft)	Performance Standard (ppm)	Existing PCB Spatial Average (ppm)
0 – 1	2	0.28
1 – X [X=2]	2	0.36

2.5 Revised Evaluation for Parcel I8-4-7

Parcel I8-4-7 is a recreational property owned by the City of Pittsfield. Only the non-bank portion of that parcel is included within the 1½ Mile Floodplain RAAs. For a recreational area like this which will be subject to a Grant of Environmental Restriction and Easement (ERE) under the CD, the applicable Performance Standards for PCBs in soil are spatial average PCB concentrations of 10 ppm for the 0- to 1-foot depth increment, 15 ppm for the 1- to 3-foot depth increment, and 100 ppm for the 0- to 15-foot depth increment. Section 3.4.3 of the Phase 2 Investigation/Evaluation Report presented an evaluation showing that the non-bank portion of Parcel I8-4-7 achieves those PCB Performance Standards under existing conditions. Specifically, that document reported that the existing spatial average PCB concentrations for that area were 6.22 ppm for the 0- to 1-foot depth increment, 4.15 ppm for the 1- to 3-foot depth increment, and 4.67 ppm for the 0- to 15-foot depth increment. Further, the document noted that since that evaluation area is less than 0.5 acre in size, the recreational NTE level of 50 ppm in the top foot of soils does not apply.

GE has re-evaluated the non-bank portion of Parcel I8-4-7, taking into account the larger area now encompassed by this area resulting from the revised property boundaries. The existing PCB data from or affecting this area are shown on Figure 7. Since this evaluation area remains well below 0.5 acre in size, the recreational NTE level does not apply. The spatial average PCB calculations for the relevant depth increments at this area are presented in Appendix A (Tables A-10 through A-12 and Figures A-20 through A-32). These results demonstrate that the applicable PCB Performance Standards are achieved under existing conditions. Specifically, the revised spatial average PCB concentrations are 3.33 ppm for the 0- to 1-foot depth increment, 2.66 ppm for the 1- to 3-foot depth increment, and 4.26 ppm for the 0- to 15-foot depth increment. This revised evaluation thus confirms that no further remediation is necessary at this property to meet the applicable Performance Standards.

Nevertheless, GE has elected to conduct soil removal within this parcel as suggested in Condition Nos. 3.c through 3.e of EPA's March 8, 2007 conditional approval letter. These soil removals will involve: a 1-foot removal of the polygon associated with sample location 2-SS-12; a 1.5-foot removal of the polygons associated with sample location R93B125; and a 2.5 foot removal of the polygon associated with sample location I8-4-7-22. The proposed soil removal areas on this property are shown on Figure 7. The total estimated soil removal volume associated with these activities is approximately 20 cy.

Since the evaluation of this property in its existing condition shows that the applicable PCB Performance Standards are already achieved, GE has not calculated post-remediation PCB concentrations to reflect the elective soil removals described above. Those soil removals will only further reduce the existing spatial average concentrations noted above.

2.6 Overall Summary

Based on the above evaluations and the additional soil removals to be performed by GE, the soil removal limits at the Phase 2 floodplain properties are shown on Technical Drawing 3 in Appendix B. The estimated soil removal volumes are as follows:

Evaluation Area	Estimated Soil Removal Volume (cy)
I8-4-201/202	25
I8-4-2, -3, -4	25
I8-4-6	0
I8-4-7	20
Total:	70

These estimated removal volumes include both soil removal volumes required to meet the applicable Performance Standards and the additional soil removals that GE has elected to perform.

3. Design Information

3.1 General

This section provides additional design-related information for the remediation activities to be conducted at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7. These activities generally consist of excavation of impacted material, disposal of this material at an appropriate off-site facility, backfilling of excavations with clean material, and general site restoration. As discussed in Section 4, GE will select a Remediation Contractor to perform the remediation actions proposed herein. Section 4 provides further details regarding that selection process, while Section 5 provides additional site-specific implementation details associated with construction of the various design components.

3.2 Technical Specifications

Technical design information regarding soil removal at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 is provided in this document. In addition, certain of the plans comprising GE's Project Operations Plan (POP) provide additional design, construction, and implementation-related information relevant to the construction activities. With the exception of the Health and Safety Plan (HASP) (which was provided to EPA for informational purposes only), the latest proposed revisions to the POP were conditionally approved by EPA in a letter to GE dated November 8, 2006 and through subsequent communications between EPA and GE, and the final revised POP will be submitted to EPA by the end of March 2007.

The POP contains a series of plans that address several common aspects of the Removal Actions Outside the River and apply to various activities to be conducted as part of those Removal Actions, ranging from initial predesign activities to the performance and completion of remediation activities. Collectively, these plans describe the minimum requirements, general activities, protocols, and methodologies applicable to these Removal Actions. These plans include a Waste Characterization Plan, Soil Cover/Backfill Characterization Plan, Site Management Plan, Ambient Air Monitoring Plan, and Contingency and Emergency Procedures Plan. The POP also includes a Construction Quality Assurance Plan (CQAP), which provides technical requirements related to items such as backfill, topsoil, seeding, mulch, etc. In addition, the CQAP specifies activities that are relevant to certain of the construction activities, such as soil placement and grading/compaction, survey control, etc. The

general provisions of the POP are applicable to the construction activities to be performed at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 and are incorporated herein by reference.

The various design details are summarized herein, but are more specifically described in the Technical Drawings and Specifications developed by GE for use in selecting a Remediation Contractor. Copies of the Technical Drawings and Specifications are provided in Appendices B and C, respectively, and include those related to soil removal as well as other construction elements.

3.3 Soil Removal Activities

As described in Section 2.5, GE will remove approximately 70 cy of soil from Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7. The removal limits are shown on Technical Drawing 3 in Appendix B. Prior to initiating removal activities for the areas subject to soil removal, the horizontal limits of removal will be surveyed and staked in the field. During removal activities, field measurements will be made to verify that the target removal depths/elevations have been achieved for each excavation area. Excavated soils will be transported to an appropriate off-site disposal facility, as further described in Section 5.5.2. Following removal, topsoil will be obtained from an off-site source (Sections 3.4 and 5.5.3) and will be placed to re-establish original grade. The provisions specified on the Technical Drawings (Appendix B) and in the Technical Specifications (Appendix C) and POP (including the Soil Cover/Backfill Characterization Plan and the CQAP) will be utilized during the removal and backfill activities.

3.4 Backfilling Excavations

Topsoil will be used to backfill the excavations at the Phase 2 floodplain properties. Information regarding the measurement, composition, and installation of acceptable topsoil is provided on the Technical Drawings and in the Technical Specifications provided in Appendices B and C, respectively.

The specific topsoil source to be used for this project will be identified by the selected Remediation Contractor. Topsoil to be used at these properties will originate either from an existing source or from a new, currently unidentified source. Existing topsoil sources consist of those sources that have been previously used for other GE remediation projects in Pittsfield and have been previously qualified for such use in submittals to EPA and/or MDEP. The sample data presented in those documents include analyses for PCBs, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and metals. If such an existing, approved

source has been used by GE within the past 18 months, these prior analytical data will not be resubmitted to EPA. For any topsoil source that has not already been identified and characterized, representative samples will be collected and analyzed for PCBs, VOCs, SVOCs, and metals, as required by GE's approved Soil Cover/Backfill Characterization Plan provided in the POP. The name of the proposed topsoil source location and the results of the analyses will be submitted to EPA in a Supplemental Information Package prior to use of such material.

3.5 Flood Storage Capacity

For soil removal/replacement activities, it is expected that the excavation and backfill/restoration activities will be conducted in such a manner as to re-establish the same general ground surface and topography of the affected areas (to the extent feasible). GE does not foresee any impact on the flood storage capacity from these actions.

3.6 Applicable or Relevant and Appropriate Requirements

The remediation actions summarized herein will be subject to several ARARs. Attachment B to the SOW identifies the chemical-, action-, and location-specific ARARs for Removal Actions Outside the River. As noted above, the remediation for Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 includes soil removal and replacement. These activities will be performed within the 100-year floodplain of the Housatonic River. In these circumstances, these remediation activities are subject to the following ARARs identified in Attachment B to the SOW: action-specific ARARs identified in Table 2, subsection B ("Soil Removal") and potentially subsection K ("Other"); and location-specific ARARs identified in Table 3, subsection B ("Floodplains, Wetlands, and Banks"). If excavation activities involve removal and on-site storage (at the GE Plant Area) of free product, intact drums, and/or other materials, the ARARs identified in Table 2, subsection H ("Temporary On-Site Storage of Free Product, Drums, and Equipment That Will Be Disposed of Off-Site") of Attachment B to the SOW will apply to such storage.

A summary of the ARARs that were considered with respect to the remediation proposed herein, along with the associated project component(s) and means by which the ARAR is addressed by the design and implementation activities, is as follows:

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
Toxic Substances Control Act (TSCA) Regulations (PCB Remediation Waste) (40 CFR 761.61)	Soil removal	EPA has determined that Removal Actions conducted in accordance with the CD and SOW will not pose an unreasonable risk of injury to health or the environment.
TSCA Regulations (Decontamination) (40 CFR 761.79)	Soil removal (equipment cleaning)	Will be attained by cleaning equipment as necessary in accordance with TSCA regulations (see Section 5.5.4).
Resource Conservation and Recovery Act (RCRA) Hazardous Waste Regulations (40 CFR 261.24)	Soil removal	GE will collect sample(s) from the soils to be excavated and subject the soils to the Toxicity Characteristic Leaching Procedure (TCLP). GE will then compare the results of this sampling to the applicable RCRA criteria. The results of this comparison will be used to characterize and dispose of the excavated materials.
Clean Water Act NPDES Regulations (Stormwater Discharges) (40 CFR 122.44(k); 40 CFR 122.26(c)(ii)(C); 40 CFR 125.100104)	Soil removal	• Implementation of erosion and sedimentation controls (Section 5.4.5).
Massachusetts Air Pollution Control Requirements (310 CMR 7.09)	Soil removal	• Implementation of dust control measures (as necessary) and air monitoring (Sections 5.5.1 and 5.6).
TSCA Regulations (Storage for Disposal) (40 CFR 761.61; 40 CFR 761.65)	Temporary storage of removed materials regulated under TSCA	 Temporary storage of free product and liquids in tanks or containers at GE's existing on-plant tank system or hazardous waste storage facility, both of which meet the long-term PCB storage requirements of TSCA. Temporary storage of drums and other equipment in containers at GE's existing on-plant hazardous waste storage facility, which meets the long-term PCB storage requirements of TSCA.

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
TSCA Regulations (PCB Marking Requirements) (40 CFR 761.40)	Temporary storage of removed materials regulated under TSCA	Will be attained by marking PCB items in accordance with these requirements.
RCRA Hazardous Waste Regulations (Storage of Hazardous Waste) (40 CFR 264, Subparts I and J 40 CFR 262.34)	Temporary storage of removed materials that constitute RCRA hazardous waste (if any)	 Temporary storage of free product and liquids in tanks or containers at GE's existing on-plant tank system or hazardous waste storage facility, both of which meet the long-term PCB storage requirements of TSCA. Temporary storage of drums and other equipment in containers at GE's existing on-plant hazardous waste storage facility. Storage of materials in tanks will be limited to 90 days or less and will meet the substantive requirements for up to 90-day accumulation in tanks. Materials in containers will be stored at GE's hazardous waste storage facility, which meets the requirements for long-term storage of hazardous waste in containers.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (Preparedness and Prevention) (40 CFR 264, Subpart C)	Temporary storage of removed materials that constitute RCRA hazardous waste (if any)	GE's existing on-plant hazardous waste storage facility meets these requirements.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (General) (40 CFR 264.1319)	Temporary storage of removed materials that constitute RCRA hazardous waste (if any)	Operation of GE's existing on-plant hazardous waste storage facility meets these requirements.
RCRA Hazardous Waste Management/Disposal Facilities Regulations (Closure) (40 CFR 264.111115)	Temporary storage of removed materials that constitute RCRA hazardous waste (if any)	Upon termination of operations, GE's existing on-plant hazardous waste storage facility will be closed in accordance with the substantive requirements of these regulations.
Massachusetts Hazardous Waste Regulations (Storage of Hazardous Waste) (310 CMR 30.680, 30.690, 30.340)	• Temporary storage of removed materials that constitute hazardous waste under state law (other than PCBs ≥ 50 ppm), if any	See discussion of Federal RCRA Hazardous Waste Regulations (Storage of Hazardous Waste) above.

ARAR	Associated Project Components	Means by Which ARAR Will Be Addressed
Massachusetts Hazardous Waste Regulations (Closure) (310 CMR 30.580)	• Temporary storage of removed materials that constitute hazardous waste under state law (other than PCBs ≥ 50 ppm), if any	See discussion of Federal RCRA Hazardous Waste Regulations (Closure) above.
TSCA Spill Cleanup Policy (40 CFR 761, Subpart G)	New PCB spills (if any) during on-site activities	GE will consider and address cleanup policy for any new PCB spills that occur during the work.
Executive Order for Floodplain Management [Exec. Order 11988 (1977); 40 CFR Part 6, App. A; 40 CFR 6.302(b)]	Soil removal activities in floodplain	 No practical alternative with less adverse impact on floodplain. Implementation of erosion and sedimentation controls (Section 5.4.5). Excavation and backfill/restoration will be conducted in a manner to avoid a loss in flood storage capacity (Section 3.5). Restoration of habitat (Section 5.5.5).
Massachusetts Wetlands Protection Act and Regulations [MGL c. 131 §40; 310 CMR 10.53(3)(q); 310 CMR 10.5458]	 Soil removal Placement of fill materials within 100-year floodplain 	 No practical alternative with less adverse impact on resource areas. All practical measures will be taken to minimize adverse impact on river. Implementation of erosion and sedimentation controls (Section 5.4.5). Excavation and backfill/restoration will be conducted in a manner to avoid a loss in flood storage capacity (Section 3.5).

In addition to the requirements specified above, if any historic or prehistoric artifacts or sites or if any threatened or endangered species are identified during the course of the remediation work, GE will notify EPA and discuss with EPA the need for and scope of additional actions, if any, regarding such resources.

4. Contractor Selection

GE will select a Remediation Contractor that is qualified to complete the on-site soil remediation/construction activities. GE anticipates selecting a Remediation Contractor within 45 days following receipt of EPA approval of this Revised Phase 2 RD/RA Work Plan Addendum.

Upon selection, the Remediation Contractor will be responsible for providing several submittals to GE, including those identified in Section 5.3 of this document. GE will subsequently provide the Contractor information and submittals to EPA in a Supplemental Information Package, as described in Section 7 of this document.

5. Implementation Plan

5.1 General

As indicated in Section 3.2, the POP contains a series of plans that address several common aspects for Removal Actions Outside the River. As relevant, those plans will be followed during implementation of the remediation activities at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7.

As a supplement to the implementation-related procedures specified in the POP plans, this section provides additional details regarding certain construction activities. Specifically, this section identifies the requirements for project-specific plans to be submitted by the selected Remediation Contractor, describes site-specific elements of the site preparation and construction activities, and summarizes the project-specific perimeter air monitoring approach.

5.2 Project Participants

To the extent possible, the following table identifies the key project participants involved in the design and implementation of the remediation/construction activities summarized herein, along with their project roles and contact information:

Organization/Contact	Role	Address and Phone Number
United States Environmental	- Lead regulatory agency.	USEPA Region 1
Protection Agency	Review and approval of this document.Oversight of remediation activities.	One Congress Street, Suite 1100 Boston, MA 02114-2023
Dean Tagliaferro	- Oversight of remediation activities.	(617) 918-1240
General Electric Company	- Supervise pre-design, construction, and	General Electric Company
	documentation activities related to the	159 Plastics Avenue
Richard W. Gates	remediation activities.	Building 59
	- Supervise implementation of the	Pittsfield, MA 01201
	remediation activities and related	(413) 448-5909
	activities to ensure they are conducted	
	in accordance with the CD.	
	- Direct/coordinate activities of the	
	Remediation Contractor and other GE-contracted organizations.	
	- Responsible for preparation of a Final	
	Completion Report.	

Organization/Contact	Role	Address and Phone Number
ARCADIS BBL James M. Nuss, P.E., LSP	 Supervising Contractor for GE. Review Remediation Contractor submittals. Project coordination and documentation. Provide technical assistance related to implementation of the remediation activities. Assist in verifying that the remediation activities are complete and performed in accordance with this document. Prepare Final Completion Report. 	ARCADIS BBL 6723 Towpath Road Syracuse, NY 13214 (315) 446-9120
Berkshire Environmental Consultants, Inc. Maura Hawkins	- Design and implement perimeter air monitoring in conjunction with construction activities.	Berkshire Environmental Consultants, Inc. 152 North Street, Suite 250 Pittsfield, MA 01201 (413) 443-0130
Remediation Contractor (To be determined)	- Implement all construction-related activities.	(To be determined)

5.3 Contractor Submittals

Once selected, the Remediation Contractor will be required to provide certain pre-mobilization submittals to demonstrate that the Contractor: a) has an adequate understanding of the scope of the remediation activities; b) has developed a project-specific sequence that can efficiently perform all on-site activities within the allowable schedule; c) will utilize acceptable materials, products, and procedures; and d) will perform all activities in a manner that is protective of on-site workers and the surrounding community. Certain of those submittals relate to the manner in which the work activities will be implemented and, as such, will supplement the information and procedures presented in this document. Those submittals include an Operations Plan, Health and Safety Plan (HASP), and Contingency Plan. Each of these submittals is further described below.

Operations Plan

The purpose of the Operations Plan is to summarize the materials, procedures, timelines, and controls that the Contractor intends to utilize during project activities. This plan will be prepared in consultation with GE and its Supervising Contractor and will include the following:

- List of equipment to be used on site;
- Residential property protection procedures;
- Work Schedule;
- The Contractor's proposed plan for controlling vehicular and pedestrian traffic during the performance of construction activities;
- The Contractor's qualifications package (if requested by GE);
- Stormwater (including run-on and run-off), erosion, noise, and dust control measures;
- The Contractor's proposed excavation approach;
- Materials handling approach; and
- Equipment cleaning procedures.

HASP

The HASP will identify the Remediation Contractor's project-specific health and safety procedures and will be developed to address the minimum requirements established in the POP and 29 CFR 1910 and 1926. The plan will address those activities to be undertaken by the Contractor and present required information including, but not limited to, the following (as applicable):

- Training;
- Identification of key personnel (including the Contractor's Health and Safety Officer);
- Medical surveillance;
- Site hazards;
- Work zones;
- Personal safety equipment and protective clothing;
- Personal air monitoring;
- Personnel/equipment cleaning;
- Confined space entry;
- Construction safety procedures;
- Standard operating procedures and safety programs; and
- Material safety data sheets.

Contingency Plan

The Contingency Plan will set forth procedures for responding to emergency conditions or events that may occur during the performance of the remediation activities, and will include the following information:

- A spill prevention control and countermeasures plan for all materials brought on the work site;
- Emergency vehicular access/egress;
- Evacuation procedures of personnel from the work site;
- For work sites that include or are adjacent to a surface water drainage way, a flood control contingency plan
 identifying measures to protect the work site(s) and the waterway from impact in the event of high water
 and/or flood conditions;
- A list of all contact personnel, with phone numbers and procedures for notifying each;
- Routes to local hospitals; and
- Identification of responsible personnel who will be in a position at all times to receive incoming phone calls
 and to dispatch Contractor personnel and equipment in the event of an emergency situation.

In addition to the required pre-mobilization document submittals specified above, the Remediation Contractor will be required to prepare a submittal specifying the source and, if necessary, the corresponding analytical data for proposed topsoil source to be used during the performance of this project.

Once developed by the selected Remediation Contractor and approved by GE, each of the above-listed Contractor submittals will be submitted to EPA in a Supplemental Information Package. In addition to these submittals, the Contractor is required to provide GE with various other submittals over the course of this project. The overall purpose of such submittals is to verify that the materials and procedures used in the construction activities are consistent with the design of the remediation. In accordance with the POP, all Contractor submittals will be tracked to confirm their receipt and approval. A copy of the Technical Submittal Register is provided in Appendix D. (Please note that submittals required by GE but not subject to submittal to EPA as part of the Supplemental Information Package have been shaded.)

5.4 Site Preparation

General site preparation activities are shown on Technical Drawing 2. Immediately prior to or following mobilization to the work area, the selected Remediation Contractor will perform several site preparation activities to establish the necessary site controls, features, and procedures for subsequent implementation of the construction activities. These activities include the following:

- Obtaining utility clearances;
- Establishing site controls and access;
- Site survey and layout;
- Installing erosion and sedimentation control measures; and
- Surface preparation.

General information regarding various site preparation activities (e.g., coordinating with local utilities, permitting, verifying existing conditions, establishing work areas, etc.) is provided in the general CQAP (part of the POP); the information provided below supplements that CQAP by providing additional site-specific details associated with certain of these activities.

5.4.1 Utility Clearances

Above-ground and underground utilities that could potentially be affected by the construction activities will be identified prior to initiating any intrusive subsurface activities (e.g., soil excavation). As indicated on the technical drawings in Appendix B, an overhead electric line is known to pass across a removal area on Parcels I8-4-2, -3, -4, and I8-4-7. The selected Remediation Contractor will be responsible for coordinating with DIGSAFE to determine the locations of all potentially affected utilities at the start of the work and coordinating with the owners of the utilities regarding relocation/termination of any utilities, as required.

5.4.2 Work Area Security

The level of work area security will depend on the activities being performed and the location of those activities. Security measures will be selected in consultation with the Remediation Contractor and may consist of temporary fencing or barriers, maintenance of sign-in/sign-out sheets, and implementation of safe work

practices, as described below.

Temporary Fencing - Temporary construction fencing will be installed, as needed, to delineate and secure

areas during ongoing construction activities. While other fencing configurations of equivalent performance may

be considered, such temporary fencing is expected to be at least 4 feet in height, constructed of high-density

polyethylene, and orange in color.

Sign-In/Sign-Out Sheet - For the duration of construction activities, a sign-in/sign-out sheet will be maintained

for the work site. All on-site personnel and visitors will be required to sign in upon entering the work area and

sign out upon leaving.

Safe work practices will also be employed at this work site. These activities may include any of the following:

Daily Safety Meetings - Such meetings, commonly referred to as tailgate meetings, are typically held with the

Contractor to discuss hazards potentially encountered during the planned daily activities.

Posting of Warning Tape - To restrict access during construction activities, warning tape may be installed at

locations to delineate certain areas, such as the exclusion zone, contaminant reduction zone, and/or support

zone.

Use of Flagmen or Other Signaling Devices - Certain excavation activities in high traffic areas may necessitate

the use of flagmen or other signaling devices (i.e., flashing beacons mounted on sawhorses).

5.4.3 "Clean" Access Area

Since a number of activities will require periodic access/egress between the work site and adjacent areas, a

"clean" transition area will be established. Such an area will be used for equipment/material delivery and for the

positioning of trucks for subsequent loading and off-site transport of excavated materials. The specific location

and construction of the access area will be developed by the Remediation Contractor based on factors such as

the layout of the site, traffic patterns, and material handling procedures.

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5.4.4 Survey Control

In accordance with the CQAP, survey controls will be established at the start of the work and maintained

throughout the construction activities. GE will provide survey benchmarks so that the Remediation Contractor

can establish appropriate horizontal and vertical control consistent with the existing survey data. As stated in

the CQAP, the Remediation Contractor will establish a minimum 50-foot control grid within Parcels I8-4-

201/202, I8-4-2, -3, -4, and I8-4-7. This survey will be performed to verify that the horizontal and vertical limits

of removals have been obtained and the final surface grade has been achieved.

5.4.5 Erosion and Sedimentation Control Measures

Erosion and sedimentation control measures will be implemented as necessary to minimize the potential for

erosion of exposed soils and subsequent accumulation of materials in site drainage pathways. In addition, these

measures will be used to divert rainfall runoff from entering work areas and open excavations.

For the remediation activities described herein, erosion control measures to be implemented will generally

include placement of hay bales and/or staked silt fencing along the downhill side of the work areas. The

approximate location and layout of the hay bales/siltation fencing are indicated on Technical Drawing 2.

Fencing will be placed at the start of the site work activities and will be maintained until a good stand of

vegetation is established.

5.4.6 Surface Preparation

Various surface preparation activities will be performed prior to or in conjunction with the initial site

preparation activities. These surface preparation activities are specified on Technical Drawing 2.

5.5 Construction Activities

5.5.1 Soil Removal and Material Handling

The proposed removal actions will require excavation and handling of certain existing soils within Parcels I8-4-

201/202, I8-4-2, -3, -4, and I8-4-7. Specifically, existing soils within the excavation limits and depths, as

depicted on Technical Drawing 3, will be removed using conventional construction equipment (e.g., excavator,

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backhoe, and loader). As indicated on that drawing, the maximum depth of excavation will be approximately 2.5 feet below ground surface (bgs).

As soils are excavated and prior to their transport to the appropriate off-site disposal facility, a number of intermediate on-site handling activities may be necessary. To ensure that such activities are performed in a manner that minimizes the potential for inadvertent releases to the environment, unsafe conditions for on-site and off-site personnel, and delays or complications in project completion, several on-site material handling procedures will be implemented. The specific method(s) of handling the removed soils will be based on, but not limited to, the following considerations:

- The characteristics of the excavated soils and corresponding disposition requirements;
- The locations from which the materials are removed and their proximity to the loading area(s); and
- The overall sequence and schedule of the remediation activities.

To reduce the potential for the release of PCBs to the environment during removal and handling activities, the number of times that the excavated material is handled will be kept to a minimum. To accomplish this, the Remediation Contractor will conduct direct loading to trucks to the extent practical. Additional information regarding material handling is discussed below.

- To reduce the potential for migration of PCBs due to wind- and rainfall-related factors, work areas where excavation activities are yet to be completed will be protected with a cover (e.g., polyethylene sheeting) which will be anchored when the area is not under active excavation/use. In addition, if concerns regarding airborne dust are identified or suspected, water will be sprayed to keep the open excavation (or excavated soils) moist.
- To the extent feasible and practicable, material handling and loading areas will not be established in locations that may interfere with construction operations or necessary traffic flow. In addition, material handling areas will be located so as to take into account site topography and avoid (to the extent possible) low-lying drainage areas where surface runoff is likely to accumulate.
- Additional erosion and sedimentation control measures (e.g., hay bales and geotextile fencing) will be utilized as necessary.

Based on the specified soil removal limits identified on Technical Drawing 3, the total volume of existing materials to be removed from Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 is approximately 70 in-situ cy. These excavated soils will be transported to and disposed of at an appropriate off-site facility. Additional information regarding the transport and disposition of excavated materials is provided below.

5.5.2 Transport and Disposition of Excavated Materials and Remediation-Derived Waste

As indicated above, all excavated materials will be transported to and disposed of at an appropriate off-site disposal facility. Previous sampling and analysis conducted for soils at the Phase 2 floodplain properties indicate that some of the soils to be removed have PCB concentrations over 50 ppm and thus are regulated for disposal under TSCA, while other soils to be removed have concentrations less than 50 ppm and thus are not regulated for disposal under TSCA. Given the relatively small removal volume at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 (approximately 70 cy), GE has elected to dispose of all of the excavated soils at an appropriate off-site facility permitted to accept TSCA-regulated waste. In addition, GE will collect samples from within the removal limits (shown on Technical Drawing 3) for Toxicity Characteristic Leaching Procedure (TCLP) analysis to determine if the material is subject to regulation as hazardous waste under the Resource Conservation and Recovery Act (RCRA).

The Remediation Contractor will be required to implement the following procedures for the transport of excavated materials from Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 to the appropriate off-site disposal facility:

- Employ qualified personnel trained per U.S. Department of Transportation (DOT) requirements for handling and shipping hazardous materials, with such training to include general safety, emergency response, exposure protection, accident prevention, preparation of shipping papers, and securing loads.
- Employ drivers that have a Commercial Driver's License (CDL) with a Hazardous Materials Endorsement.
- Utilize trucks that are DOT-inspected.
- Include in its HASP, Operations Plan, and Contingency Plan, detailed provisions for responding to transportation emergencies such as spills, releases, or other incidents.

• Maintain records of the number of loads of materials sent off-site on a daily basis.

• Confirm that the materials are suitable for transport (i.e., no free liquids).

The transport of excavated materials from these floodplain properties to the appropriate off-site disposal facility will be conducted in accordance with the following guidelines:

• After a safety check of the truck, the truck bed will be lined with polyethylene. Excavated soil will be

placed in the truck and the load will be covered.

• Hazardous Waste Manifests will be prepared and signed by the truck driver. The DOT shipping description

to be used on the manifests will be:

"RQ, Polychlorinated biphenyls, mixture, 9, UN 2315, PG 111, RQ"

5.5.3 Backfilling of Excavations

Backfilling operations will be initiated as soon as practicable after completion and proper documentation of excavation activities (i.e., survey control). It is anticipated that the excavations will be backfilled with topsoil. Following backfilling, excavation areas will be subject to seeding and mulching activities to establish adequate

vegetation.

Topsoil material will be clean, natural material. The specific topsoil source to be used for this project will be identified by the Remediation Contractor. A description of the process for identifying such a source and, if

necessary, submitting the analytical data for it was presented in Section 3.4.

5.5.4 Equipment Cleaning

Equipment and materials that have come into contact with existing soils at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 during the construction activities will be cleaned prior to relocation to an area outside the work zone

(i.e., the excavation and loading areas), prior to handling topsoil, and prior to its departure from these properties.

Equipment cleaning will be conducted as specified in Section 3.5 of the Site Management Plan in the POP.

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5.5.5 Restoration of Disturbed Vegetation

This section pertains to the restoration of vegetated areas both within and outside the soil removal limits. Technical Drawing 4 (in Appendix B) depicts the areas that will be subject to vegetative restoration. In accordance with Condition No. 4 of EPA's March 8, 2007 conditional approval letter, GE will include an inventory of the trees and shrubs located in the general work area in the forthcoming Supplemental Information Package. Upon completion of remediation activities, GE will plant trees/shrubs of similar species. GE will also discuss the scope of restoration activities with the property owners during the development process.

5.6 Perimeter Air Monitoring

Ambient air monitoring for PCBs and particulate matter will be performed during the remediation actions. The scope of the ambient air monitoring program is presented in Appendix E to this document. In overview, ambient air monitoring for PCBs will include collection of ambient air samples using "high volume" samplers equipped with glass fiber filters and polyurethane foam (PUF) cartridges. The samples will be collected, analyzed, and evaluated using the procedures specified in EPA Compendium Method TO-4A. To obtain representative data on ambient levels of PCBs around the construction site before and during construction activities, a PCB air sampling event will be performed prior to the start of construction activities, and an additional sampling event will be performed during the course of construction (which is anticipated to be implemented within a 1 to 2 week timeframe). Ambient air monitoring for particulates will be performed on a continuous basis during all active construction activities using real-time particulate air monitors.

The ambient air monitoring scope of work in Appendix E notes that monitoring for PCBs will be conducted at two on-site locations, as well as a background location on Longfellow Avenue in Pittsfield. It provides further that monitoring for particulate matter will be conducted at two on-site locations during soil remediation activities. The scope of work identifies two preliminary monitoring locations (shown on Figure E-1 in Appendix E), and notes that these locations may be adjusted slightly as remediation activities progress.

6. Post-Construction Activities

6.1 General

This section addresses the post-construction activities to be performed by GE at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7. These activities include project closeout activities and Post-Removal Site Control activities.

6.2 Project Closeout – Pre-Certification Inspection and Completion Report

Following completion of the remediation activities at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7, the remaining project close-out activities for the Phase 2 floodplain properties will be performed. These activities include the execution and recording of an ERE for Parcel I8-4-7 by the City of Pittsfield, the performance of a pre-certification inspection of the Phase 2 properties with EPA and MDEP, and the development and submission of a Final Completion Report. Based on discussions with EPA, instead of submitting separate Final Completion Reports for the phases of the floodplain properties, GE will submit Final Completion Reports for the 1½ Mile Floodplain Residential Properties and the 1½ Mile Floodplain Non-Residential Properties. A description of the remediation actions performed at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 will be included in the appropriate Final Completion Report Those reports will also include a Post-Removal Site Control Plan (consistent with Section 6.3 below).

6.3 Post-Removal Site Control Activities

Post-construction inspection and maintenance (I/M) activities will be performed at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7, as required by Technical Attachment J to the SOW, at the frequencies and duration described below.

6.3.1 Periodic Inspections

GE will initiate post-construction inspections of the restored surfaces at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 following completion of the construction activities. Such inspections will be performed for areas that were backfilled and restored.

For backfilled/restored areas, the first inspection will be performed approximately one month after completion of construction activities. Thereafter, these areas will be inspected every 6 months for the first year following restoration and annually thereafter (subject to EPA approval of a different frequency). In addition, these areas will be inspected after severe storm events (defined in accordance with Attachment J to the SOW as storm events with a 10- to 20-year return period). At a minimum, these inspections will include visual observations of the following: (a) erosion controls to verify their continued effectiveness until such time vegetation is sufficiently established; (b) any areas where excessive settlement has occurred relative to the surrounding areas; (c) any drainage or growth problems due to possible over-compaction of the backfill materials; and (d) other conditions that could jeopardize the completed remediation.

In addition, GE will inspect all revegetated areas semi-annually for a two-year period after the planting of the vegetation to assess the condition of the vegetation, including any evidence of stressed or sparse cover, and to ensure that the vegetation is growing as anticipated and providing the desired degree of erosion control. These inspections are anticipated to occur in May and October of each year during this two-year period.

6.3.2 Maintenance/Repair

In connection with the periodic inspections and inspections after severe storm events, GE will address any conditions that need maintenance or repair. Examples of maintenance/repair activities that may be identified and conducted as a result of these inspections include, but are not limited to, placement of additional topsoil in areas of erosion or settlement and repair or replacement of any components of the backfilled/restored areas exhibiting deficiencies or potential problems. If needed, additional planting or seeding will be performed to replace dead or dying vegetation.

Any such conditions noted as a result of these inspections will be addressed as soon as practicable. The nature of the associated maintenance/repair will be documented in the subsequent inspection report.

6.3.3 Inspection Reporting

Following each inspection described in Section 6.3.1, an inspection report will be prepared and submitted to EPA. Each such report will document I/M activities performed since submittal of the previous inspection report. As required by Attachment J to the SOW, these reports will include the following information (as relevant):

- Description of the type and frequency of inspection and/or monitoring activities conducted;
- Description of any significant modifications to the inspection and/or monitoring program made since submittal of the preceding monitoring report;
- Description of any conditions or problems noted during the inspection and/or monitoring period which are
 affecting or may affect the completed remediation;
- Description of any corrective measures taken;
- Results of sampling analyses and screening (if any) conducted as part of the inspection and/or monitoring program (if any); and
- Description of any measures that may need to be performed to correct any conditions affecting the completed remediation.

6.4 Additional Inspection Activities

In addition to the inspections described in Section 6.3 as part of Post-Removal Site Control activities, GE will conduct the inspections required by the CD (Paragraph 57.0) of the City-owned property for which an ERE will have been recorded (Parcel I8-4-7). The details of these inspection activities and associated reporting will be presented in the Final Completion Report for the 1½ Mile Floodplain Non-Residential Properties.

7. Schedule

As described in Section 4, GE will select a Remediation Contractor within approximately 45 days following receipt of EPA approval of this Revised Phase 2 RD/RA Work Plan Addendum. GE will then submit a Supplemental Information Package to EPA within 30 days following selection of the Remediation Contractor. The Supplemental Information Package is anticipated to include the following:

- Identification of and contact information for the selected Remediation Contractor;
- Copies of the Remediation Contractor's pre-mobilization submittals (i.e., Operations Plan, HASP, and Contingency Plan);
- Identification of a topsoil source and location; and
- Analytical data for sample(s) collected from the topsoil source (unless the source has already been approved based on previously submitted analytical data).

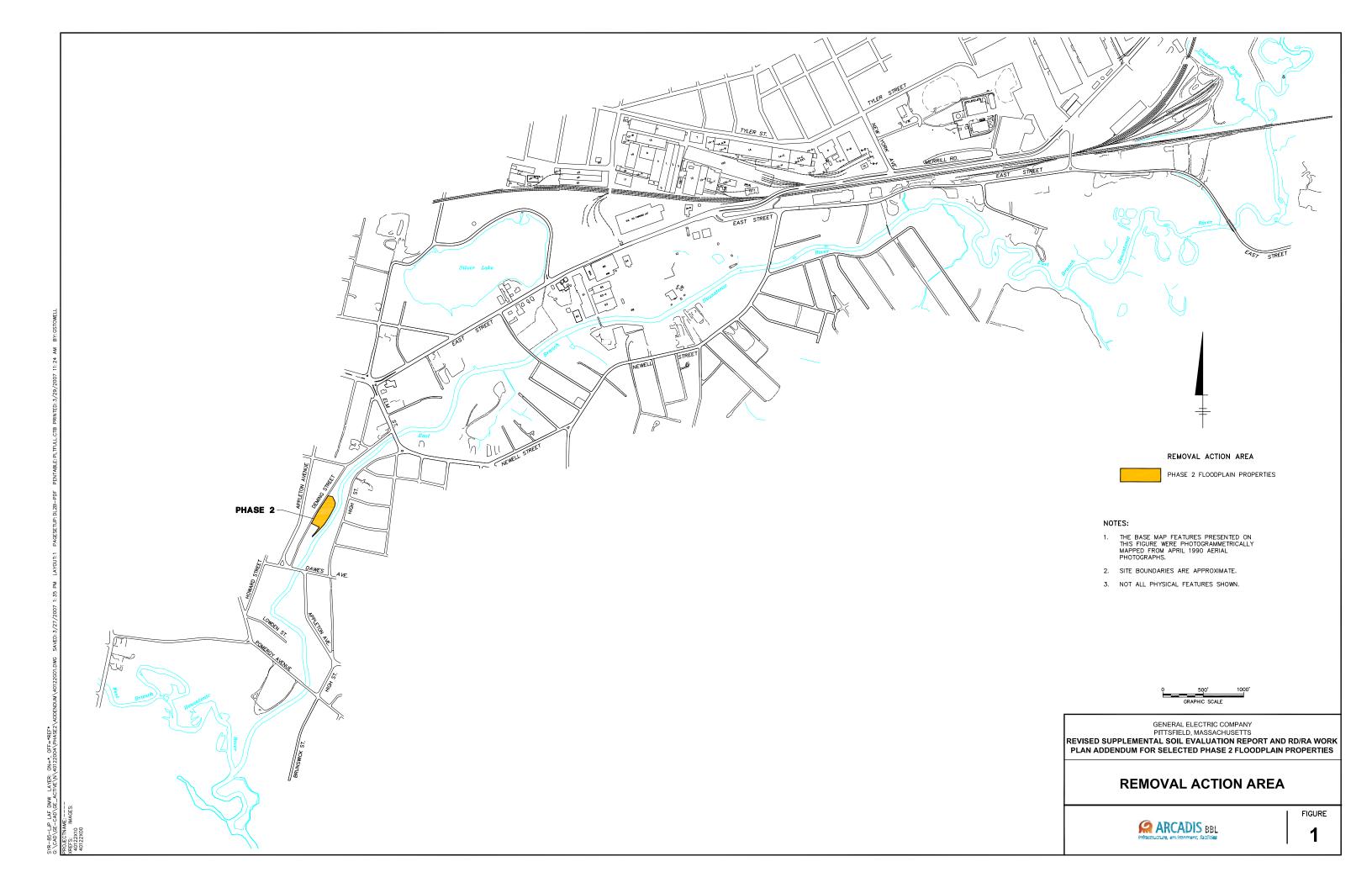
Following EPA approval of this Revised Phase 2 RD/RA Work Plan Addendum and the Supplemental Information Package, site preparation activities will be initiated. It is anticipated that remediation activities at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 will be initiated within 60 days following EPA approval of the Supplemental Information Package and receipt of the necessary access permission from the property owners to conduct the proposed remediation actions at their properties. Additional details regarding overall project duration will be provided in the Remediation Contractor's Work Schedule – which is a required component of the Contingency Plan submittal (Section 5.3) – to be provided to EPA as part of the forthcoming Supplemental Information Package. With respect to access, if GE is unable to obtain access permission from the owners of Parcels I8-4-201/202 and/or I8-4-2, -3, -4 after using "best efforts" (as defined in the CD) to do so, it will so advise EPA and MDEP and seek their assistance in obtaining such access pursuant to Paragraph 60.f(i) of the CD.

Once GE has determined that the remediation actions at Parcels I8-4-201/202, I8-4-2, -3, -4, and I8-4-7 are complete, GE will proceed with the remaining project close-out activities described in Section 6.2. GE anticipates submitting draft Final Completion Reports for the 1½ Mile Floodplain Residential Properties and the 1½ Mile Floodplain Non-Residential Properties to EPA within 90 days following completion of remediation actions at the Phase 2 floodplain properties. Once all necessary activities (other than Post-Removal Site Control activities) have been completed and GE has determined that the applicable Performance Standards have been

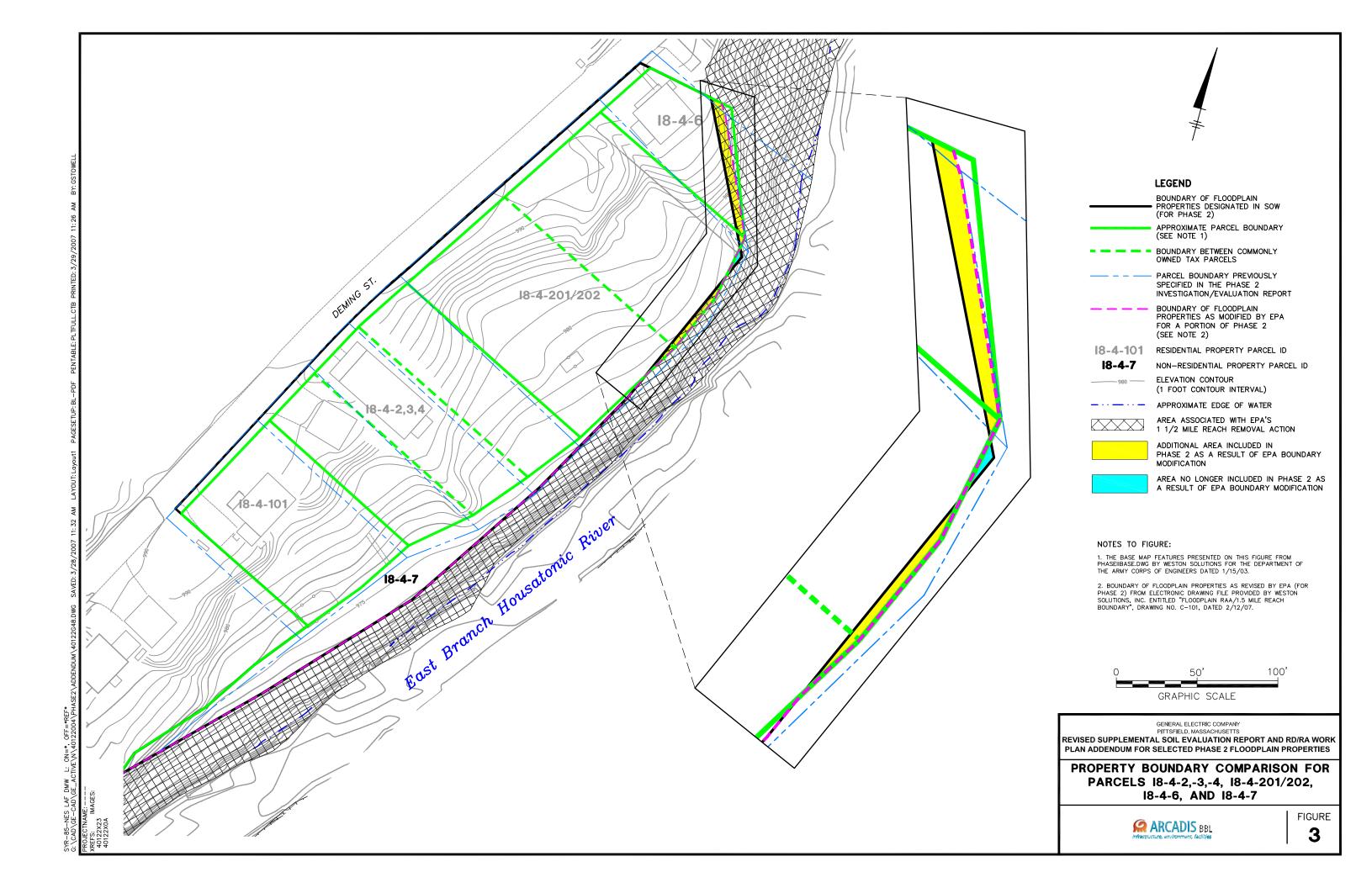
attained for all properties within Phase 2, including the execution and recording of an ERE for Parcel I8-4-7, GE will schedule a pre-certification inspection with EPA and MDEP and will then submit final versions of the Final Completion Reports to EPA.

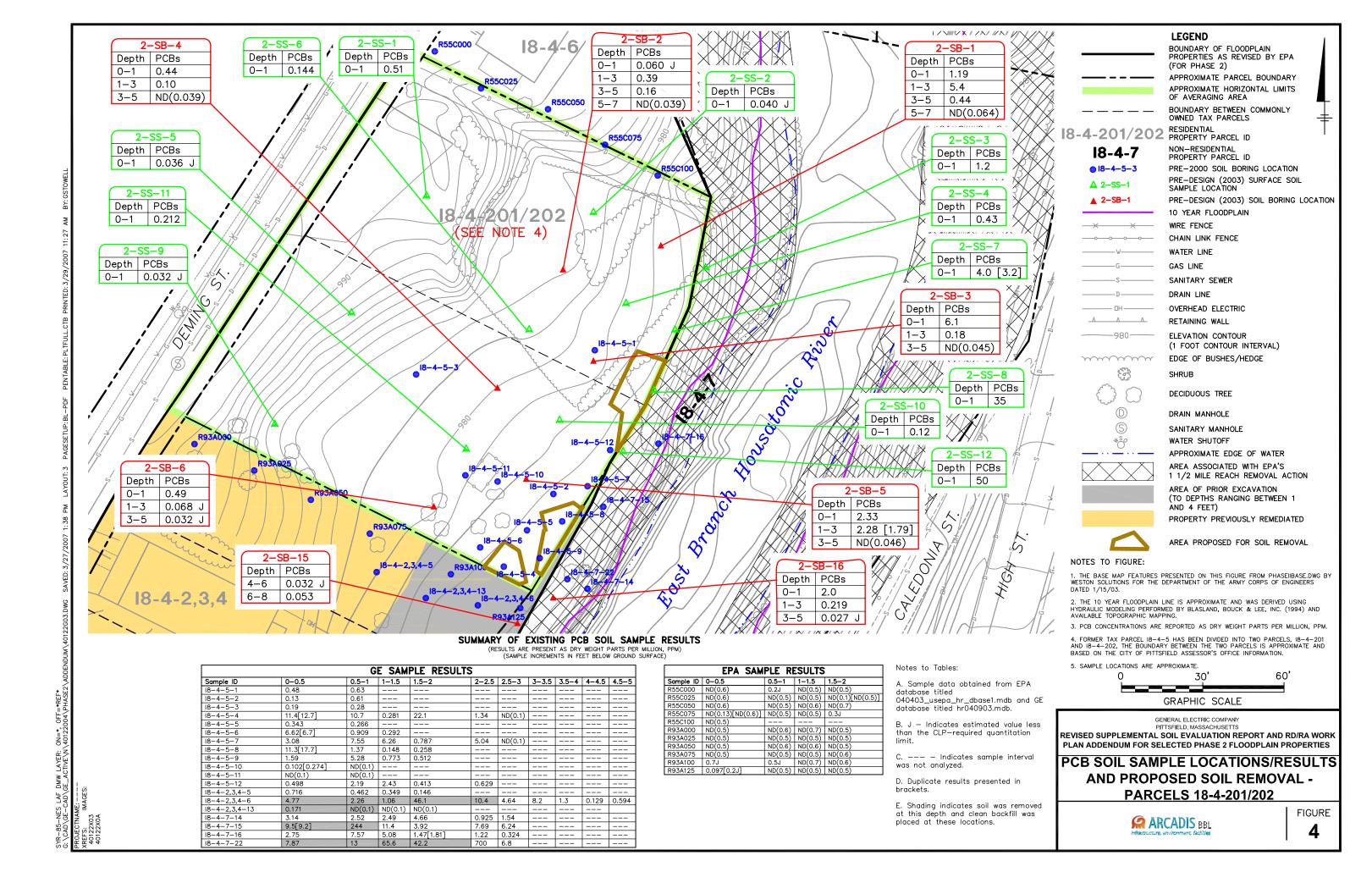
Figures

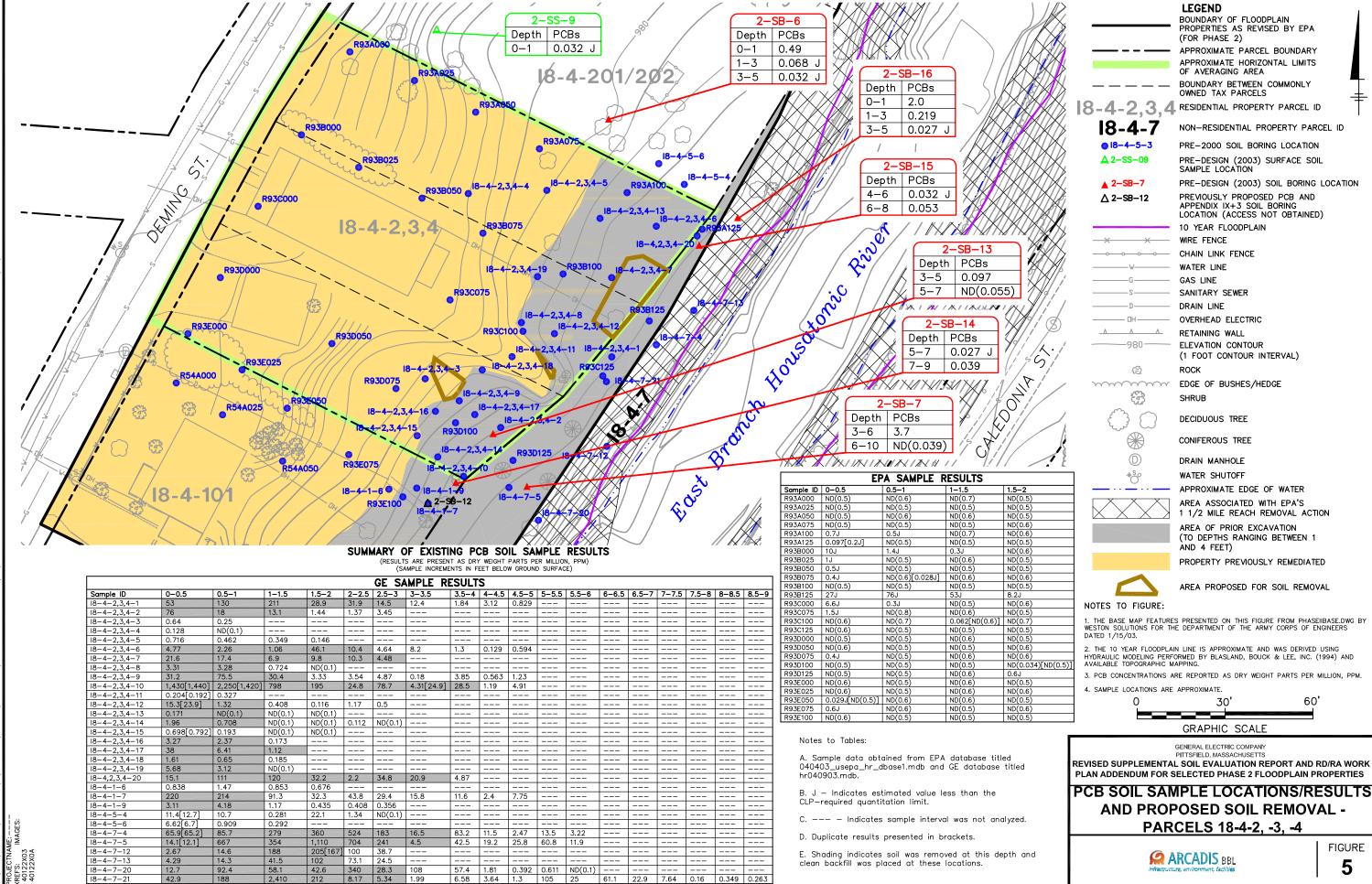


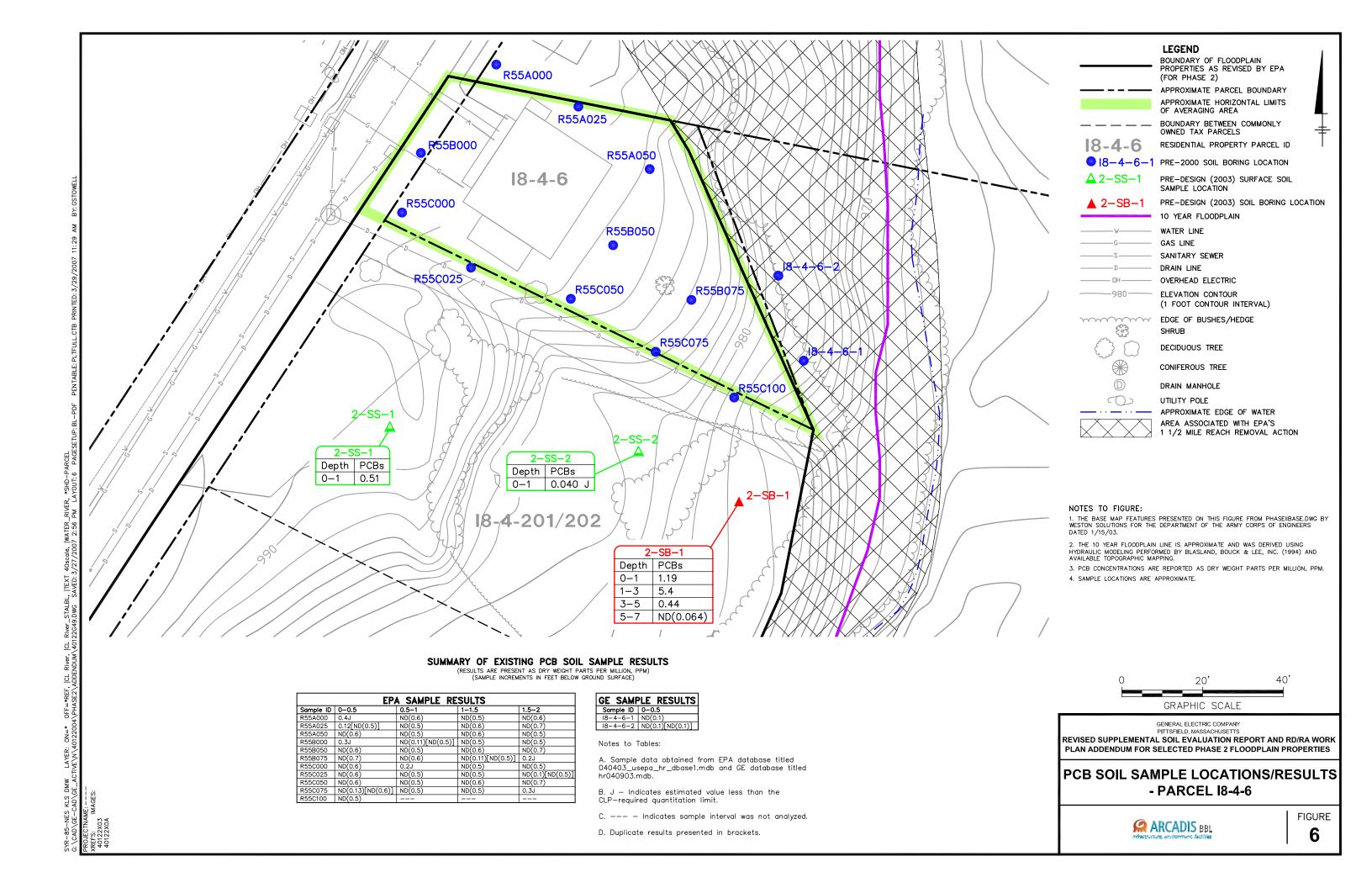


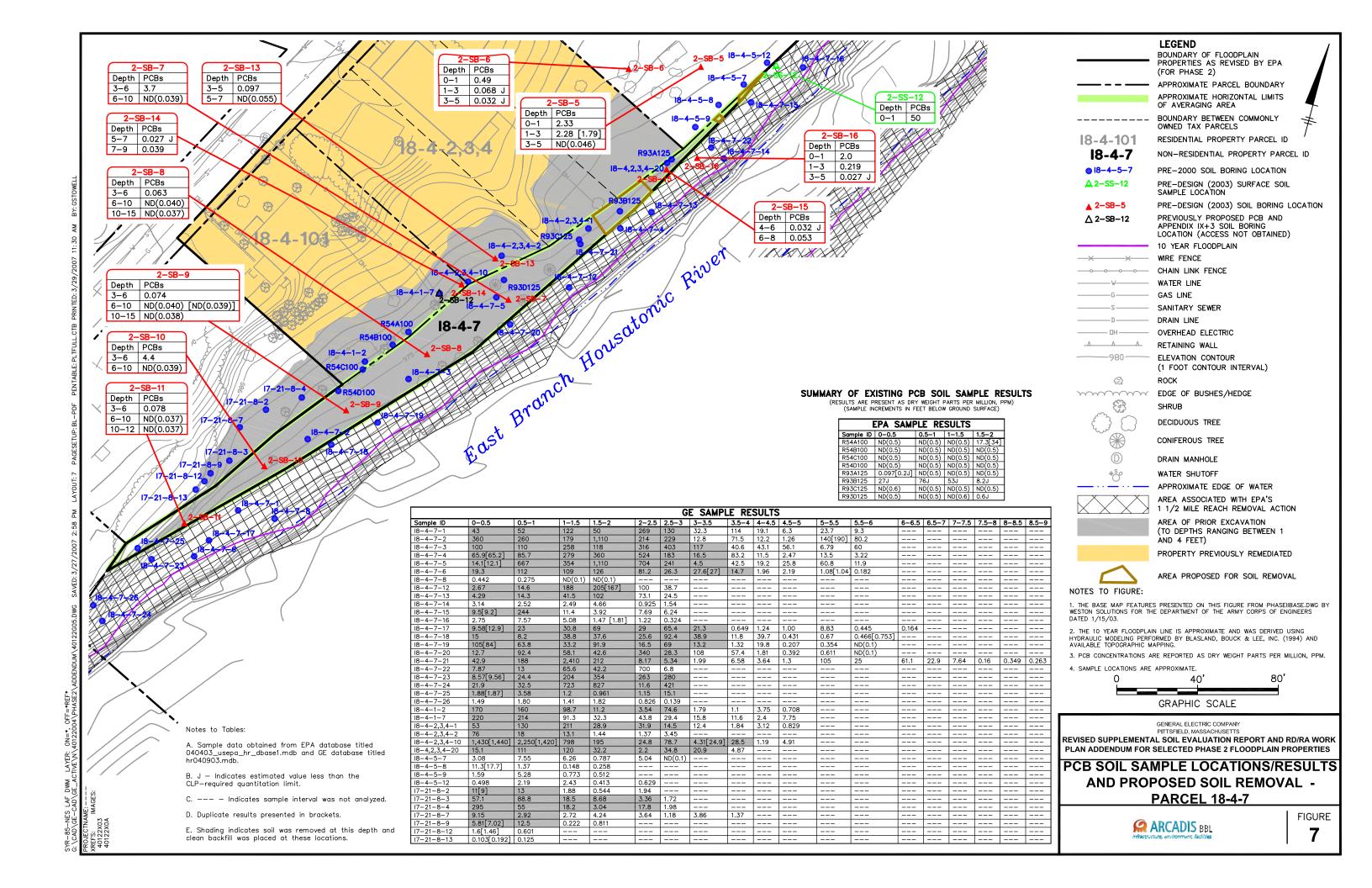












Appendices



Appendix A

PCB Spatial Averaging Evaluation Tables and Polygon Maps



Parcels **I8-4-201/202**



TABLE A-1 EXISTING CONDITIONS PARCELS I8-4-201/202: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 0.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Cond
2-SB-1	106	601	0 - 0.5	1.19	11.13	1.19	13.24
2-SB-2	108	1,024	0 - 0.5	0.06	18.96	0.06	1.14
2-SB-3	105	376	0 - 0.5	6.1	6.97	6.10	42.51
2-SB-4	113	725	0 - 0.5	0.44	13.42	0.44	5.90
2-SB-5	111	283	0 - 0.5	2.33	5.24	2.33	12.22
2-SB-6	115	651	0 - 0.5	0.49	12.05	0.49	5.91
2-SB-16	122	3	0 - 0.5	2	0.05	2.00	0.10
2-SS-1	104	2,936	0 - 0.5	0.51	54.38	0.51	27.73
2-SS-2	107	915	0 - 0.5	0.04	16.95	0.04	0.68
2-SS-3	116	164	0 - 0.5	1.2	3.03	1.20	3.64
2-SS-4	110	536	0 - 0.5	0.43	9.93	0.43	4.27
2-SS-5	103	2,709	0 - 0.5	0.036	50.17	0.04	1.81
2-SS-6	109	1,060	0 - 0.5	0.144	19.64	0.14	2.83
2-SS-7	117	291	0 - 0.5	3.6	5.40	3.60	19.43
2-SS-8	118	271	0 - 0.5	35	5.01	35.00	175.46
2-SS-9	102	1,665	0 - 0.5	0.032	30.83	0.03	0.99
2-SS-10	112	588	0 - 0.5	0.12	10.88	0.12	1.31
2-SS-11	114	579	0 - 0.5	0.212	10.73	0.21	2.27
2-SS-12	119	40	0 - 0.5	50	0.75	50.00	37.37
18-4-5-1	88	333	0 - 0.5	0.48	6.18	0.48	2.96
18-4-5-2	92	186	0 - 0.5	0.13	3.44	0.13	0.45
18-4-5-3	93	1,570	0 - 0.5	0.19	29.07	0.19	5.52
18-4-5-4	94	135	0 - 0.5	12.05	2.49	12.05	30.05
18-4-5-5	95,95A	228	0 - 0.5	0.343	4.23	0.34	1.45
18-4-5-6	96	275	0 - 0.5	6.66	5.09	6.66	33.88
18-4-5-7	97	173	0 - 0.5	3.08	3.20	3.08	9.85
18-4-5-8	98	131	0 - 0.5	14.5	2.42	14.50	35.06
18-4-5-9	99,99A	143	0 - 0.5	1.59	2.64	1.59	4.20
18-4-5-10	89	263	0 - 0.5	0.188	4.87	0.19	0.92
18-4-5-11	90	237	0 - 0.5	0.05	4.40	0.05	0.22
18-4-5-12	91	253	0 - 0.5	0.498	4.69	0.50	2.33
18-4-7-15	120	1	0 - 0.5	9.5	0.01	9.50	0.09
R55C000	100	513	0 - 0.5	0.3	9.50	0.30	2.85
R55C025	101	668	0 - 0.5	0.3	12.38	0.30	3.71
R55C050	129	541	0 - 0.5	0.3	10.01	0.30	3.00
R55C075	130	327	0 - 0.5	0.1825	6.06	0.18	1.11
R55C100	131	389	0 - 0.5	0.25	7.21	0.25	1.80
R93A000	128	398	0 - 0.5	0.25	7.38	0.25	1.84
R93A025	127	72	0 - 0.5	0.25	1.34	0.25	0.33
R93A050	126	427	0 - 0.5	0.25	7.92	0.25	1.98
R93A075	125	208	0 - 0.5	0.25	3.85	0.25	0.96
R93A100	124	13	0 - 0.5	0.7	0.24	0.70	0.17
R93A125	123	8	0 - 0.5	0.1485	0.15	0.15	0.02
Totals:		22,910			424.26		503.57
	•	,			Volume Weigh	stad Assauana	1.19

0.5- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	106	832	0.5 - 1	1.19	15.41	1.19	18.34
2-SB-2	108	1,024	0.5 - 1	0.06	18.96	0.06	1.14
2-SB-3	105	376	0.5 - 1	6.1	6.97	6.10	42.51
2-SB-4	113	725	0.5 - 1	0.44	13.42	0.44	5.90
2-SB-5	111	283	0.5 - 1	2.33	5.24	2.33	12.22

TABLE A-1 EXISTING CONDITIONS PARCELS I8-4-201/202: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

0.5- TO 1-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	115	651	0.5 - 1	0.49	12.05	0.49	5.91
2-SB-16	122	3	0.5 - 1	2	0.05	2.00	0.10
2-SS-1	104	2,936	0.5 - 1	0.51	54.38	0.51	27.73
2-SS-2	107	970	0.5 - 1	0.04	17.96	0.04	0.72
2-SS-3	116	165	0.5 - 1	1.2	3.05	1.20	3.66
2-SS-4	110	536	0.5 - 1	0.43	9.93	0.43	4.27
2-SS-5	103	2,709	0.5 - 1	0.036	50.17	0.04	1.81
2-SS-6	109	1,060	0.5 - 1	0.144	19.64	0.14	2.83
2-SS-7	117	291	0.5 - 1	3.6	5.40	3.60	19.43
2-SS-8	118	271	0.5 - 1	35	5.01	35.00	175.46
2-SS-9	102	1,665	0.5 - 1	0.032	30.83	0.03	0.99
2-SS-10	112	588	0.5 - 1	0.12	10.88	0.12	1.31
2-SS-11	114	579	0.5 - 1	0.212	10.73	0.21	2.27
2-SS-12	119	40	0.5 - 1	50	0.75	50.00	37.37
18-4-5-1	88	333	0.5 - 1	0.63	6.18	0.63	3.89
18-4-5-2	92	186	0.5 - 1	0.61	3.44	0.61	2.10
18-4-5-3	93	1,570	0.5 - 1	0.28	29.07	0.28	8.14
18-4-5-4	94	135	0.5 - 1	10.7	2.49	10.70	26.68
18-4-5-5	95,95A	228	0.5 - 1	0.266	4.23	0.27	1.12
18-4-5-6	96	275	0.5 - 1	0.909	5.09	0.91	4.62
18-4-5-7	97	173	0.5 - 1	7.55	3.20	7.55	24.15
18-4-5-8	98	131	0.5 - 1	1.37	2.42	1.37	3.31
18-4-5-9	99,99A	143	0.5 - 1	5.28	2.64	5.28	13.93
18-4-5-10	89	263	0.5 - 1	0.05	4.87	0.05	0.24
18-4-5-11	90	237	0.5 - 1	0.05	4.40	0.05	0.22
18-4-5-12	91	253	0.5 - 1	2.19	4.69	2.19	10.27
18-4-7-15	120	1	0.5 - 1	244	0.01	244.00	2.43
R55C000	100	513	0.5 - 1	0.2	9.50	0.20	1.90
R55C025	101	668	0.5 - 1	0.25	12.38	0.25	3.09
R55C050	129	541	0.5 - 1	0.25	10.01	0.25	2.50
R55C075	130	430	0.5 - 1	0.25	7.96	0.25	1.99
R93A000	128	398	0.5 - 1	0.3	7.38	0.30	2.21
R93A025	127	72	0.5 - 1	0.25	1.34	0.25	0.33
R93A050	126	427	0.5 - 1	0.3	7.92	0.30	2.37
R93A075	125	208	0.5 - 1	0.25	3.85	0.25	0.96
R93A100	124	13	0.5 - 1	0.5	0.24	0.50	0.12
R93A125	123	8	0.5 - 1	0.25	0.15	0.25	0.04
Totals:		22,910			424.26	-	480.61
****					Volume Weigh	nted Average:	1.13

SUMMARY - 0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		22,910			848.51	-	984.19
	•		•		Volume Weig	stad Assauana	1.16

Notes:

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

TABLE A-2 EXISTING CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1- TO 1.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc
2-SB-1	59	1,529	1 - 1.5	5.4	28.32	5.40	152.91
2-SB-2	60	2,853	1 - 1.5	0.39	52.84	0.39	20.61
2-SB-3	58	1,476	1 - 1.5	0.18	27.33	0.18	4.92
2-SB-4	62	3,951	1 - 1.5	0.1	73.16	0.10	7.32
2-SB-5	61	861	1 - 1.5	2.035	15.95	2.04	32.45
2-SB-6	69A	1,263	1 - 1.5	0.068	23.38	0.07	1.59
2-SB-16	66	3	1 - 1.5	0.219	0.05	0.22	0.01
18-4-5-4	51	152	1 - 1.5	0.281	2.82	0.28	0.79
18-4-5-6	52	352	1 - 1.5	0.292	6.51	0.29	1.90
18-4-5-7	53	239	1 - 1.5	6.26	4.43	6.26	27.70
18-4-5-8	54,54A	234	1 - 1.5	0.148	4.34	0.15	0.64
18-4-5-9	55,55A	214	1 - 1.5	0.773	3.97	0.77	3.07
18-4-5-12	50	478	1 - 1.5	2.43	8.84	2.43	21.49
18-4-7-15	64	1	1 - 1.5	11.4	0.01	11.40	0.11
I8-4-7-16	63	67	1 - 1.5	5.08	1.24	5.08	6.32
R55C000	56	1,316	1 - 1.5	0.25	24.37	0.25	6.09
R55C025	57	2,151	1 - 1.5	0.25	39.84	0.25	9.96
R55C050	73	662	1 - 1.5	0.3	12.26	0.30	3.68
R55C075	74	775	1 - 1.5	0.25	14.35	0.25	3.59
R93A000	72	1,518	1 - 1.5	0.35	28.10	0.35	9.84
R93A025	71	1,626	1 - 1.5	0.25	30.12	0.25	7.53
R93A050	70	961	1 - 1.5	0.3	17.80	0.30	5.34
R93A075	69	208	1 - 1.5	0.25	3.85	0.25	0.96
R93A100	68	13	1 - 1.5	0.35	0.24	0.35	0.08
R93A125	67	8	1 - 1.5	0.25	0.15	0.25	0.04
Totals:		22,910			424.26	-	328.93
					Volume Weigl	hted Average:	0.78

1.5- TO 2-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	59	1,529	1.5 - 2	5.4	28.32	5.40	152.91
2-SB-2	60	2,853	1.5 - 2	0.39	52.84	0.39	20.61
2-SB-3	58	1,476	1.5 - 2	0.18	27.33	0.18	4.92
2-SB-4	62	3,951	1.5 - 2	0.1	73.16	0.10	7.32
2-SB-5	61	895	1.5 - 2	2.035	16.57	2.04	33.72
2-SB-6	69A	1,342	1.5 - 2	0.068	24.86	0.07	1.69
2-SB-16	66	3	1.5 - 2	0.219	0.05	0.22	0.01
18-4-5-4	51	326	1.5 - 2	22.1	6.03	22.10	133.34
18-4-5-7	53	239	1.5 - 2	0.787	4.43	0.79	3.48
18-4-5-8	54,54A	234	1.5 - 2	0.258	4.34	0.26	1.12
18-4-5-9	55,55A	216	1.5 - 2	0.512	4.00	0.51	2.05
18-4-5-12	50	478	1.5 - 2	0.413	8.84	0.41	3.65
18-4-7-15	64	1	1.5 - 2	3.92	0.01	3.92	0.04
18-4-7-16	63	67	1.5 - 2	1.64	1.24	1.64	2.04
R55C000	56	1,316	1.5 - 2	0.25	24.37	0.25	6.09
R55C025	57	2,151	1.5 - 2	0.15	39.84	0.15	5.98
R55C050	73	662	1.5 - 2	0.35	12.26	0.35	4.29
R55C075	74	775	1.5 - 2	0.3	14.35	0.30	4.31

TABLE A-2 EXISTING CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1.5- TO 2-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
R93A000	72	1,518	1.5 - 2	0.25	28.10	0.25	7.03
R93A025	71	1,626	1.5 - 2	0.25	30.12	0.25	7.53
R93A050	70	961	1.5 - 2	0.25	17.80	0.25	4.45
R93A075	69	208	1.5 - 2	0.3	3.85	0.30	1.15
R93A100	68	76	1.5 - 2	0.3	1.41	0.30	0.42
R93A125	67	8	1.5 - 2	0.25	0.15	0.25	0.04
Totals:		22,910			424.26		408.18
					Volume Weigl	hted Average:	0.96

2- TO 2.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	32	1,942	2 - 2.5	5.4	35.96	5.40	194.20
2-SB-2	33	7,083	2 - 2.5	0.39	131.16	0.39	51.15
2-SB-3	31	1,476	2 - 2.5	0.18	27.33	0.18	4.92
2-SB-4	35	5,598	2 - 2.5	0.1	103.67	0.10	10.37
2-SB-5	34	995	2 - 2.5	2.035	18.43	2.04	37.50
2-SB-6	36	4,307	2 - 2.5	0.068	79.76	0.07	5.42
2-SB-16	40	18	2 - 2.5	0.219	0.33	0.22	0.07
18-4-5-4	29	512	2 - 2.5	1.34	9.48	1.34	12.70
18-4-5-7	30	311	2 - 2.5	5.04	5.75	5.04	29.00
18-4-5-12	28	478	2 - 2.5	0.629	8.84	0.63	5.56
18-4-7-15	38	30	2 - 2.5	7.69	0.55	7.69	4.22
18-4-7-16	37	67	2 - 2.5	1.22	1.24	1.22	1.52
18-4-7-22	39	94	2 - 2.5	700	1.74	700.00	1,216.69
Totals:		22,910			424.25		1,573.32
_				•	Volume Weigl	nted Average:	3.71

2.5- TO 3-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	32	1,942	2.5 - 3	5.4	35.96	5.40	194.20
2-SB-2	33	7,083	2.5 - 3	0.39	131.16	0.39	51.15
2-SB-3	31	1,584	2.5 - 3	0.18	29.33	0.18	5.28
2-SB-4	35	5,600	2.5 - 3	0.1	103.70	0.10	10.37
2-SB-5	34	1,013	2.5 - 3	2.035	18.76	2.04	38.18
2-SB-6	36	4,307	2.5 - 3	0.068	79.76	0.07	5.42
2-SB-16	40	18	2.5 - 3	0.219	0.33	0.22	0.07
18-4-5-4	29	512	2.5 - 3	0.05	9.48	0.05	0.47
18-4-5-7	30	538	2.5 - 3	0.05	9.97	0.05	0.50
I8-4-7-15	38	30	2.5 - 3	6.24	0.55	6.24	3.42
18-4-7-16	37	189	2.5 - 3	0.324	3.50	0.32	1.13
18-4-7-22	39	94	2.5 - 3	6.8	1.74	6.80	11.82
Totals:		22,910			424.25		322.03
					Volume Weigl	nted Average:	0.76

TABLE A-2 EXISTING CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

3- TO 4-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)		ampl Depth (ft.)		PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	17	1,942	3	-	4	1.44	71.92	1.44	103.57
2-SB-2	18	7,083	3	-	4	1.16	262.33	1.16	304.30
2-SB-3	16	1,838	3	-	4	0.0225	68.07	0.02	1.53
2-SB-4	20	5,600	3	-	4	0.0195	207.41	0.02	4.04
2-SB-5	19	1,668	3	-	4	0.023	61.78	0.02	1.42
2-SB-6	21	4,384	3	-	4	0.032	162.37	0.03	5.20
2-SB-16	22	237	3	-	4	0.027	8.76	0.03	0.24
18-4-2.3.4-6	23	158	3	-	3.5	8.2	5.86	4.75	27.85
18-4-2,3,4-6	23	158	3.5	-	4	1.3	5.80	4.75	27.85
Totals:		22,910					848.51		448.16
							Volume Weigl	hted Average:	0.53

4- TO 5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc.
2-SB-1	19	1,942	4 - 5	0.44	71.92	0.44	31.65
2-SB-2	20	7,083	4 - 5	0.16	262.33	0.16	41.97
2-SB-3	18	1,838	4 - 5	0.0225	68.07	0.02	1.53
2-SB-4	22	5,600	4 - 5	0.0195	207.41	0.02	4.04
2-SB-5	21	1,668	4 - 5	0.023	61.78	0.02	1.42
2-SB-6	23	4,384	4 - 5	0.032	162.37	0.03	5.20
2-SB-16	24	237	4 - 5	0.027	8.76	0.03	0.24
18-4-2.3.4-6	26	158	4 - 4.5	0.129	5.86	0.36	2.12
10-4-2,3,4-0	20	158	4.5 - 5	0.594	5.00	0.36	2.12
Totals:		22,910			848.51		88.17
					Volume Weig	hted Average:	0.10

5- TO 7-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	6	2,266	5 - 6	0.032	83.92	0.03	2.69
2-SB-2	7	16,005	5 - 6	0.0195	592.78	0.02	11.56
2-SB-15*	8	4,639	5 - 6	0.032	343.60	0.04	14.60
2-36-13	0	4,039	6 - 7	0.053	343.00	0.04	14.00
Totals:		22,910			1,020.30	-	28.85
					Volume Weigl	hted Average:	0.03

SUMMARY - 1- TO X-FOOT (X=7) DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		22,910			4,414.33		3,197.63
					Volume Weig	hted Average:	0.72

Notes:

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- $2. \ \ \text{For instances where a duplicate sample was available, the average of the samples was included in table.}$
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.
- 4. $\,^\star$ The existing sample depth increment for this location is 6 to 8 feet.

TABLE A-3 POST-REMEDIATION CONDITIONS PARCELS I8-4-201/202: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 0.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	106	601	0 - 0.5	1.19	11.13	1.19	13.24
2-SB-2	108	1,024	0 - 0.5	0.06	18.96	0.06	1.14
2-SB-3	105	376	0 - 0.5	6.1	6.97	6.10	42.51
2-SB-4	113	725	0 - 0.5	0.44	13.42	0.44	5.90
2-SB-5	111	283	0 - 0.5	2.33	5.24	2.33	12.22
2-SB-6	115	651	0 - 0.5	0.49	12.05	0.49	5.91
2-SB-16	122	3	0 - 0.5	2	0.05	2.00	0.10
2-SS-1	104	2,936	0 - 0.5	0.51	54.38	0.51	27.73
2-SS-2	107	915	0 - 0.5	0.04	16.95	0.04	0.68
2-SS-3	116	164	0 - 0.5	1.2	3.03	1.20	3.64
2-SS-4	110	536	0 - 0.5	0.43	9.93	0.43	4.27
2-SS-5	103	2,709	0 - 0.5	0.036	50.17	0.04	1.81
2-SS-6	109	1,060	0 - 0.5	0.144	19.64	0.14	2.83
2-SS-7	117	291	0 - 0.5	3.6	5.40	3.60	19.43
2-SS-8	118	271	0 - 0.5	0.021	5.01	0.02	0.11
2-SS-9	102	1.665	0 - 0.5	0.032	30.83	0.03	0.99
2-SS-10	112	588	0 - 0.5	0.12	10.88	0.12	1.31
2-SS-11	114	579	0 - 0.5	0.212	10.73	0.21	2.27
2-SS-12	119	40	0 - 0.5	0.021	0.75	0.02	0.02
18-4-5-1	88	333	0 - 0.5	0.48	6.18	0.48	2.96
18-4-5-2	92	186	0 - 0.5	0.13	3.44	0.13	0.45
18-4-5-3	93	1,570	0 - 0.5	0.19	29.07	0.19	5.52
18-4-5-4	94	135	0 - 0.5	0.021	2.49	0.02	0.05
18-4-5-5	95A	224	0 - 0.5	0.343	4.15	0.34	1.42
18-4-5-5	95	4	0 - 0.5	0.021	0.08	0.02	0.00
18-4-5-6	96	275	0 - 0.5	6.66	5.09	6.66	33.88
18-4-5-7	97	173	0 - 0.5	3.08	3.20	3.08	9.85
18-4-5-8	98	131	0 - 0.5	0.021	2.42	0.02	0.05
18-4-5-9	99A	83	0 - 0.5	1.59	1.53	1.59	2.44
18-4-5-9	99	60	0 - 0.5	0.021	1.11	0.02	0.02
18-4-5-10	89	263	0 - 0.5	0.188	4.87	0.19	0.92
18-4-5-11	90	237	0 - 0.5	0.05	4.40	0.05	0.22
18-4-5-12	91	253	0 - 0.5	0.498	4.69	0.50	2.33
18-4-7-15	120	1	0 - 0.5	0.021	0.01	0.02	0.00
R55C000	100	513	0 - 0.5	0.3	9.50	0.30	2.85
R55C025	101	668	0 - 0.5	0.3	12.38	0.30	3.71
R55C050	129	541	0 - 0.5	0.3	10.01	0.30	3.00
R55C075	130	327	0 - 0.5	0.1825	6.06	0.18	1.11
R55C100	131	389	0 - 0.5	0.25	7.21	0.25	1.80
R93A000	128	398	0 - 0.5	0.25	7.38	0.25	1.84
R93A025	127	72	0 - 0.5	0.25	1.34	0.25	0.33
R93A050	126	427	0 - 0.5	0.25	7.92	0.25	1.98
R93A075	125	208	0 - 0.5	0.25	3.85	0.25	0.96
R93A100	124	13	0 - 0.5	0.7	0.24	0.70	0.17
R93A125	123	8	0 - 0.5	0.1485	0.15	0.15	0.02
Totals:		22,910			424.26		224.01
.ouis.	-1	22,010			Volume Weigh		0.53

0.5- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	106	832	0.5 - 1	1.19	15.41	1.19	18.34
2-SB-2	108	1,024	0.5 - 1	0.06	18.96	0.06	1.14
2-SB-3	105	376	0.5 - 1	6.1	6.97	6.10	42.51
2-SB-4	113	725	0.5 - 1	0.44	13.42	0.44	5.90
2-SB-5	111	283	0.5 - 1	2.33	5.24	2.33	12.22

TABLE A-3 POST-REMEDIATION CONDITIONS PARCELS I8-4-201/202: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

0.5- TO 1-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	115	651	0.5 - 1	0.49	12.05	0.49	5.91
2-SB-16	122	3	0.5 - 1	2	0.05	2.00	0.10
2-SS-1	104	2,936	0.5 - 1	0.51	54.38	0.51	27.73
2-SS-2	107	970	0.5 - 1	0.04	17.96	0.04	0.72
2-SS-3	116	165	0.5 - 1	1.2	3.05	1.20	3.66
2-SS-4	110	536	0.5 - 1	0.43	9.93	0.43	4.27
2-SS-5	103	2,709	0.5 - 1	0.036	50.17	0.04	1.81
2-SS-6	109	1,060	0.5 - 1	0.144	19.64	0.14	2.83
2-SS-7	117	291	0.5 - 1	3.6	5.40	3.60	19.43
2-SS-8	118	271	0.5 - 1	0.021	5.01	0.02	0.11
2-SS-9	102	1.665	0.5 - 1	0.032	30.83	0.03	0.99
2-SS-10	112	588	0.5 - 1	0.12	10.88	0.12	1.31
2-SS-11	114	579	0.5 - 1	0.212	10.73	0.21	2.27
2-SS-12	119	40	0.5 - 1	0.021	0.75	0.02	0.02
18-4-5-1	88	333	0.5 - 1	0.63	6.18	0.63	3.89
18-4-5-2	92	186	0.5 - 1	0.61	3.44	0.61	2.10
18-4-5-3	93	1.570	0.5 - 1	0.28	29.07	0.28	8.14
18-4-5-4	94	135	0.5 - 1	0.021	2.49	0.02	0.05
18-4-5-5	95A	224	0.5 - 1	0.266	4.15	0.27	1.10
18-4-5-5	95	4	0.5 - 1	0.021	0.08	0.02	0.00
18-4-5-6	96	275	0.5 - 1	0.909	5.09	0.91	4.62
18-4-5-7	97	173	0.5 - 1	7.55	3.20	7.55	24.15
18-4-5-8	98	131	0.5 - 1	0.021	2.42	0.02	0.05
18-4-5-9	99A	83	0.5 - 1	5.28	1.53	5.28	8.09
18-4-5-9	99	60	0.5 - 1	0.021	1.11	0.02	0.02
18-4-5-10	89	263	0.5 - 1	0.05	4.87	0.05	0.24
18-4-5-11	90	237	0.5 - 1	0.05	4.40	0.05	0.22
18-4-5-12	91	253	0.5 - 1	2.19	4.69	2.19	10.27
18-4-7-15	120	1	0.5 - 1	0.021	0.01	0.02	0.00
R55C000	100	513	0.5 - 1	0.2	9.50	0.20	1.90
R55C025	101	668	0.5 - 1	0.25	12.38	0.25	3.09
R55C050	129	541	0.5 - 1	0.25	10.01	0.25	2.50
R55C075	130	430	0.5 - 1	0.25	7.96	0.25	1.99
R93A000	128	398	0.5 - 1	0.3	7.38	0.30	2.21
R93A025	127	72	0.5 - 1	0.25	1.34	0.25	0.33
R93A050	126	427	0.5 - 1	0.3	7.92	0.30	2.37
R93A075	125	208	0.5 - 1	0.25	3.85	0.25	0.96
R93A100	124	13	0.5 - 1	0.5	0.24	0.50	0.12
R93A125	123	8	0.5 - 1	0.25	0.15	0.25	0.04
Totals:		22,910			424.26		229.74
	•			•	Volume Weigl	hted Average:	0.54

SUMMARY - 0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		22,910			848.51	-	453.75
					Volume Weigl	hted Average:	0.53

Notes

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.
- 4. Shaded numbers in bold and italics represent the placement of clean backfill material following the performance of the proposed remediation. The backfill concentration corresponds to the average PCB concentration as presented in the CD Sites Backfill Data Set.

TABLE A-4 POST-REMEDIATION CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1- TO 1.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	59	1,529	1 - 1.5	5.4	28.32	5.40	152.91
2-SB-2	60	2,853	1 - 1.5	0.39	52.84	0.39	20.61
2-SB-3	58	1,476	1 - 1.5	0.18	27.33	0.18	4.92
2-SB-4	62	3,951	1 - 1.5	0.1	73.16	0.10	7.32
2-SB-5	61	861	1 - 1.5	2.035	15.95	2.04	32.45
2-SB-6	69A	1,263	1 - 1.5	0.068	23.38	0.07	1.59
2-SB-16	66	3	1 - 1.5	0.219	0.05	0.22	0.01
18-4-5-4	51	152	1 - 1.5	0.281	2.82	0.28	0.79
18-4-5-6	52	352	1 - 1.5	0.292	6.51	0.29	1.90
18-4-5-7	53	239	1 - 1.5	6.26	4.43	6.26	27.70
18-4-5-8	54A	202	1 - 1.5	0.148	3.74	0.15	0.55
18-4-5-8	54	32	1 - 1.5	0.021	0.60	0.02	0.01
18-4-5-9	55A	153	1 - 1.5	0.773	2.83	0.77	2.18
18-4-5-9	55	62	1 - 1.5	0.021	1.14	0.02	0.02
18-4-5-12	50	478	1 - 1.5	2.43	8.84	2.43	21.49
18-4-7-15	64	1	1 - 1.5	11.4	0.01	11.40	0.11
18-4-7-16	63	67	1 - 1.5	5.08	1.24	5.08	6.32
R55C000	56	1,316	1 - 1.5	0.25	24.37	0.25	6.09
R55C025	57	2,151	1 - 1.5	0.25	39.84	0.25	9.96
R55C050	73	662	1 - 1.5	0.3	12.26	0.30	3.68
R55C075	74	775	1 - 1.5	0.25	14.35	0.25	3.59
R93A000	72	1,518	1 - 1.5	0.35	28.10	0.35	9.84
R93A025	71	1,626	1 - 1.5	0.25	30.12	0.25	7.53
R93A050	70	961	1 - 1.5	0.3	17.80	0.30	5.34
R93A075	69	208	1 - 1.5	0.25	3.85	0.25	0.96
R93A100	68	13	1 - 1.5	0.35	0.24	0.35	0.08
R93A125	67	8	1 - 1.5	0.25	0.15	0.25	0.04
Totals:		22,910			424.26		328.00
	•	•			Volume Weigl	hted Average:	0.77

1.5- TO 2-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	59	1,529	1.5 - 2	5.4	28.32	5.40	152.91
2-SB-2	60	2,853	1.5 - 2	0.39	52.84	0.39	20.61
2-SB-3	58	1,476	1.5 - 2	0.18	27.33	0.18	4.92
2-SB-4	62	3,951	1.5 - 2	0.1	73.16	0.10	7.32
2-SB-5	61	895	1.5 - 2	2.035	16.57	2.04	33.72
2-SB-6	69A	1,342	1.5 - 2	0.068	24.86	0.07	1.69
2-SB-16	66	3	1.5 - 2	0.219	0.05	0.22	0.01
18-4-5-4	51	326	1.5 - 2	22.1	6.03	22.10	133.34
18-4-5-7	53	239	1.5 - 2	0.787	4.43	0.79	3.48
18-4-5-8	54A	202	1.5 - 2	0.258	3.74	0.26	0.96
18-4-5-8	54	32	1.5 - 2	0.021	0.60	0.02	0.01
18-4-5-9	55A	154	1.5 - 2	0.512	2.86	0.51	1.46
18-4-5-9	55	62	1.5 - 2	0.021	1.14	0.02	0.02
18-4-5-12	50	478	1.5 - 2	0.413	8.84	0.41	3.65
18-4-7-15	64	1	1.5 - 2	3.92	0.01	3.92	0.04
18-4-7-16	63	67	1.5 - 2	1.64	1.24	1.64	2.04
R55C000	56	1,316	1.5 - 2	0.25	24.37	0.25	6.09
R55C025	57	2,151	1.5 - 2	0.15	39.84	0.15	5.98
R55C050	73	662	1.5 - 2	0.35	12.26	0.35	4.29
R55C075	74	775	1.5 - 2	0.3	14.35	0.30	4.31

TABLE A-4 POST-REMEDIATION CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1.5- TO 2-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
R93A000	72	1,518	1.5 - 2	0.25	28.10	0.25	7.03
R93A025	71	1,626	1.5 - 2	0.25	30.12	0.25	7.53
R93A050	70	961	1.5 - 2	0.25	17.80	0.25	4.45
R93A075	69	208	1.5 - 2	0.3	3.85	0.30	1.15
R93A100	68	76	1.5 - 2	0.3	1.41	0.30	0.42
R93A125	67	8	1.5 - 2	0.25	0.15	0.25	0.04
Totals:		22,910			424.26		407.47
					Volume Weig	hted Average:	0.96

2- TO 2.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	32	1,942	2 - 2.5	5.4	35.96	5.40	194.20
2-SB-2	33	7,083	2 - 2.5	0.39	131.16	0.39	51.15
2-SB-3	31	1,476	2 - 2.5	0.18	27.33	0.18	4.92
2-SB-4	35	5,598	2 - 2.5	0.1	103.67	0.10	10.37
2-SB-5	34	995	2 - 2.5	2.035	18.43	2.04	37.50
2-SB-6	36	4,307	2 - 2.5	0.068	79.76	0.07	5.42
2-SB-16	40	18	2 - 2.5	0.219	0.33	0.22	0.07
18-4-5-4	29	512	2 - 2.5	1.34	9.48	1.34	12.70
18-4-5-7	30	311	2 - 2.5	5.04	5.75	5.04	29.00
18-4-5-12	28	478	2 - 2.5	0.629	8.84	0.63	5.56
I8-4-7-15	38	30	2 - 2.5	7.69	0.55	7.69	4.22
18-4-7-16	37	67	2 - 2.5	1.22	1.24	1.22	1.52
18-4-7-22	39	94	2 - 2.5	0.021	1.74	0.02	0.04
Totals:		22,910			424.25		356.67
		•	•	<u> </u>	Volume Weigl	nted Average:	0.84

2.5- TO 3-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	32	1,942	2.5 - 3	5.4	35.96	5.40	194.20
2-SB-2	33	7,083	2.5 - 3	0.39	131.16	0.39	51.15
2-SB-3	31	1,584	2.5 - 3	0.18	29.33	0.18	5.28
2-SB-4	35	5,600	2.5 - 3	0.1	103.70	0.10	10.37
2-SB-5	34	1,013	2.5 - 3	2.035	18.76	2.04	38.18
2-SB-6	36	4,307	2.5 - 3	0.068	79.76	0.07	5.42
2-SB-16	40	18	2.5 - 3	0.219	0.33	0.22	0.07
18-4-5-4	29	512	2.5 - 3	0.05	9.48	0.05	0.47
18-4-5-7	30	538	2.5 - 3	0.05	9.97	0.05	0.50
18-4-7-15	38	30	2.5 - 3	6.24	0.55	6.24	3.42
18-4-7-16	37	189	2.5 - 3	0.324	3.50	0.32	1.13
18-4-7-22	39	94	2.5 - 3	6.8	1.74	6.80	11.82
Totals:		22,910			424.25		322.03
					Volume Weigl	nted Average:	0.76

TABLE A-4 POST-REMEDIATION CONDITIONS PARCELS I8-4-201/202: 1- TO X-FOOT (X=7) DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

3- TO 4-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	D	Sample Depth (ft.)		Depth		Depth		PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	17	1,942	3	-	4	1.44	71.92	1.44	103.57				
2-SB-2	18	7,083	3	-	4	1.16	262.33	1.16	304.30				
2-SB-3	16	1,838	3	-	4	0.0225	68.07	0.02	1.53				
2-SB-4	20	5,600	3	-	4	0.0195	207.41	0.02	4.04				
2-SB-5	19	1,668	3	-	4	0.023	61.78	0.02	1.42				
2-SB-6	21	4,384	3	-	4	0.032	162.37	0.03	5.20				
2-SB-16	22	237	3	-	4	0.027	8.76	0.03	0.24				
18-4-2.3.4-6	23	158	3	-	3.5	8.2	5.86	4.75	27.85				
10-4-2,3,4-0	23	156	3.5	-	4	1.3	5.00	4.75	27.00				
Totals:		22,910					848.51		448.16				
							Volume Weig	hted Average:	0.53				

4- TO 5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc.
2-SB-1	19	1,942	4 - 5	0.44	71.92	0.44	31.65
2-SB-2	20	7,083	4 - 5	0.16	262.33	0.16	41.97
2-SB-3	18	1,838	4 - 5	0.0225	68.07	0.02	1.53
2-SB-4	22	5,600	4 - 5	0.0195	207.41	0.02	4.04
2-SB-5	21	1,668	4 - 5	0.023	61.78	0.02	1.42
2-SB-6	23	4,384	4 - 5	0.032	162.37	0.03	5.20
2-SB-16	24	237	4 - 5	0.027	8.76	0.03	0.24
18-4-2.3.4-6	26	158	4 - 4.5	0.129	5.86	0.36	2.12
10-4-2,3,4-0	20	158	4.5 - 5	0.594	5.00	0.36	2.12
Totals:		22,910			848.51		88.17
					Volume Weig	hted Average:	0.10

5- TO 7-FOOT DEPTH INCREMENT

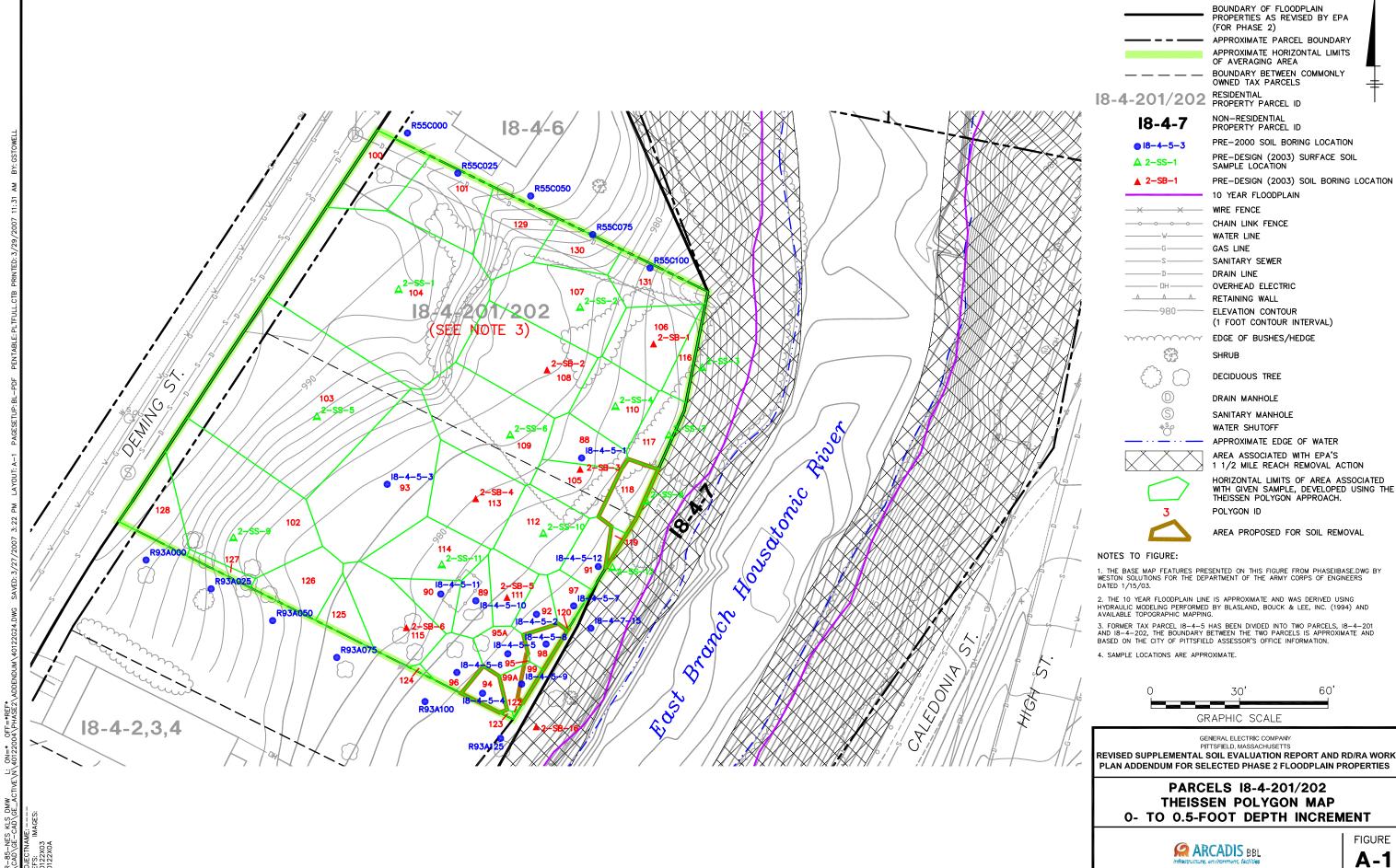
Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	6	2,266	5 - 6	0.032	83.92	0.03	2.69
2-SB-2	7	16,005	5 - 6	0.0195	592.78	0.02	11.56
2-SB-15*	8	4,639	5 - 6	0.032	343.60	0.04	14.60
			6 - 7	0.053			
Totals:	-	22,910			1,020.30	-	28.85
					Volume Weighted Average:		0.03

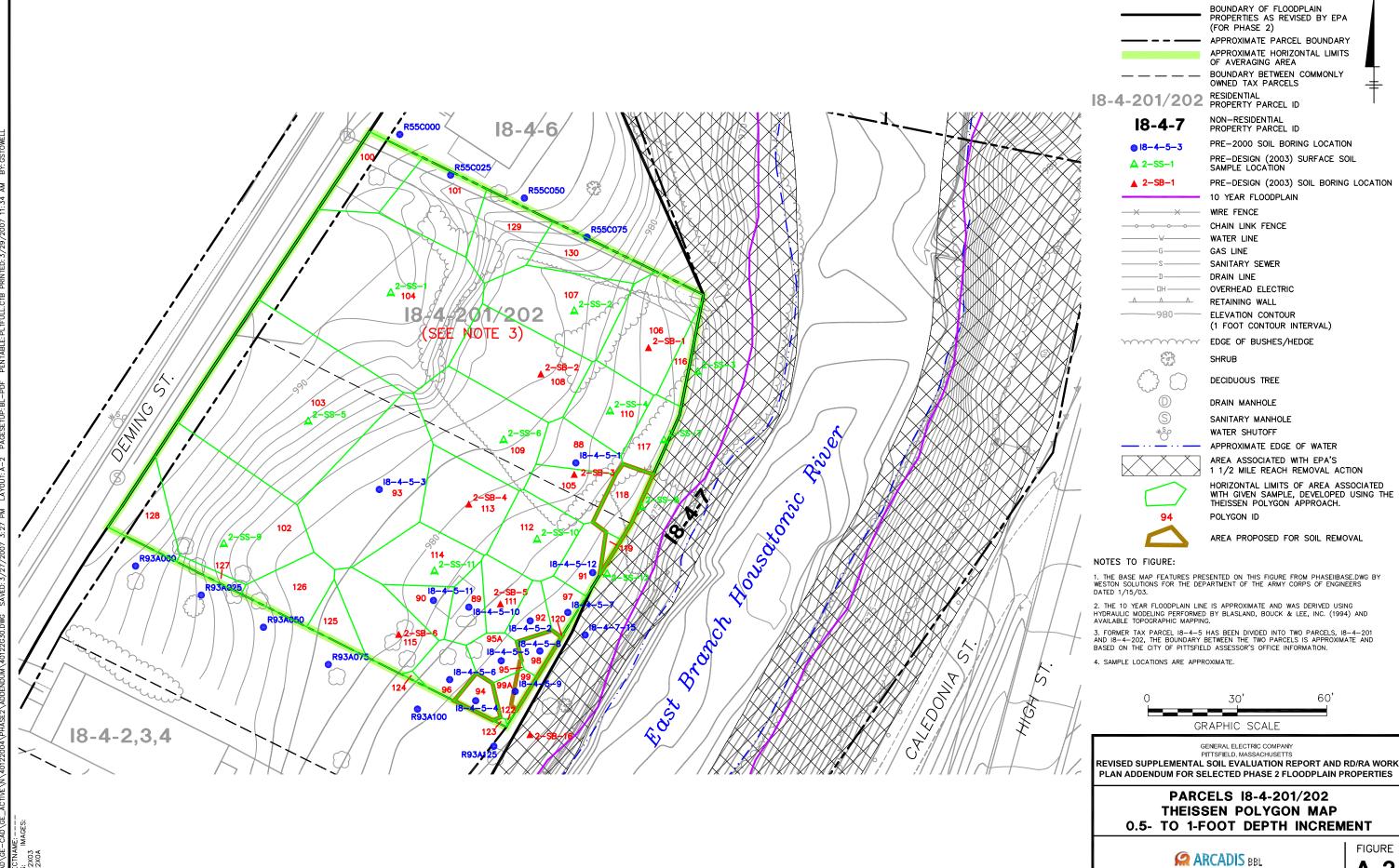
SUMMARY - 1- TO X-FOOT (X=7) DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		22,910			4,414.33		1,979.34
					Volume Weighted Average:		0.45

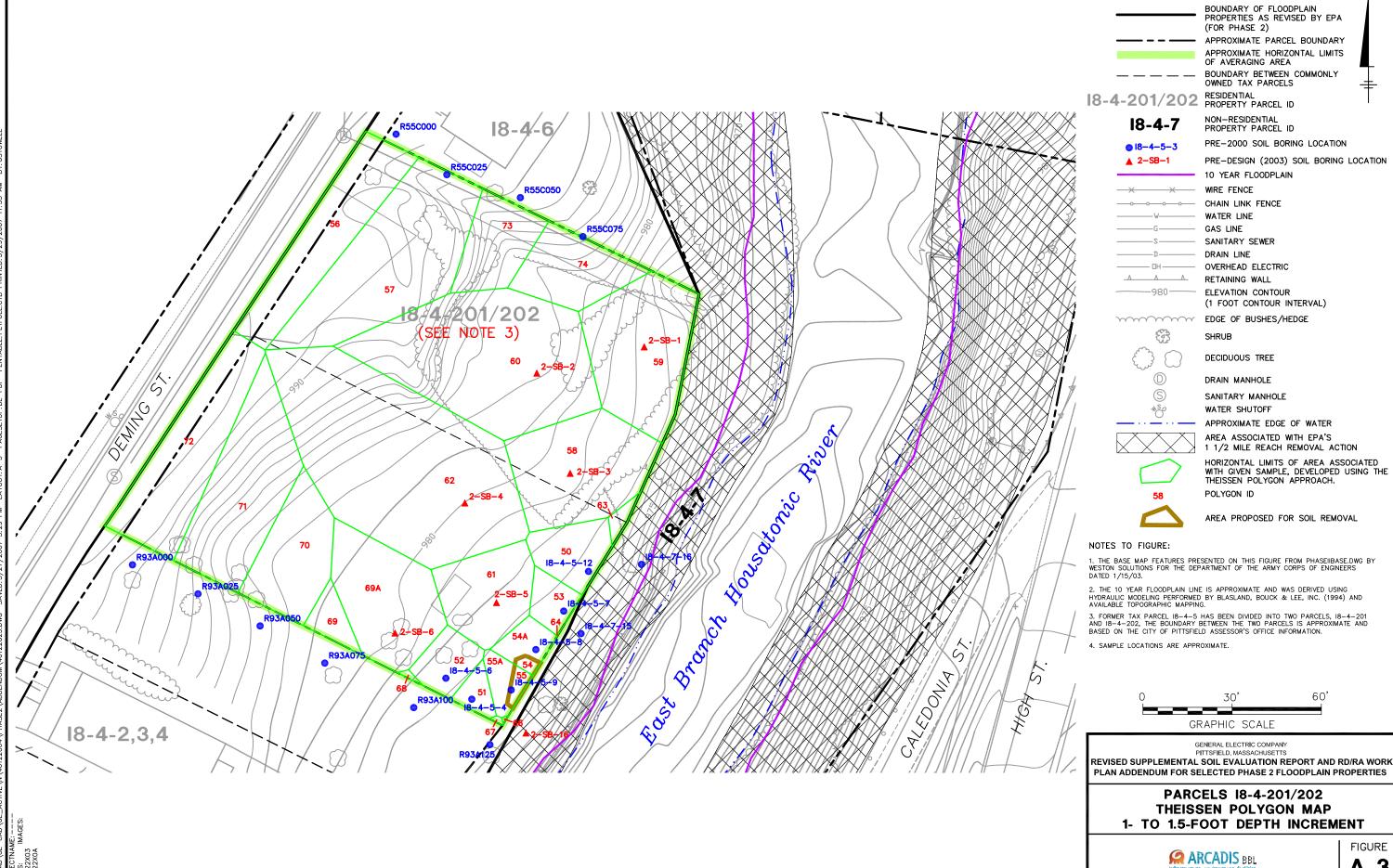
Notes:

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- $2. \ \ \text{For instances where a duplicate sample was available, the average of the samples was included in table.}$
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.
- 4. Shaded numbers in bold and italics represent the placement of clean backfill material following the performance of the proposed remediation. The backfill concentration corresponds to the average PCB concentration as presented in the CD Sites Backfill Data Set.
- 5. * The existing sample depth increment for this location is 6 to 8 feet.

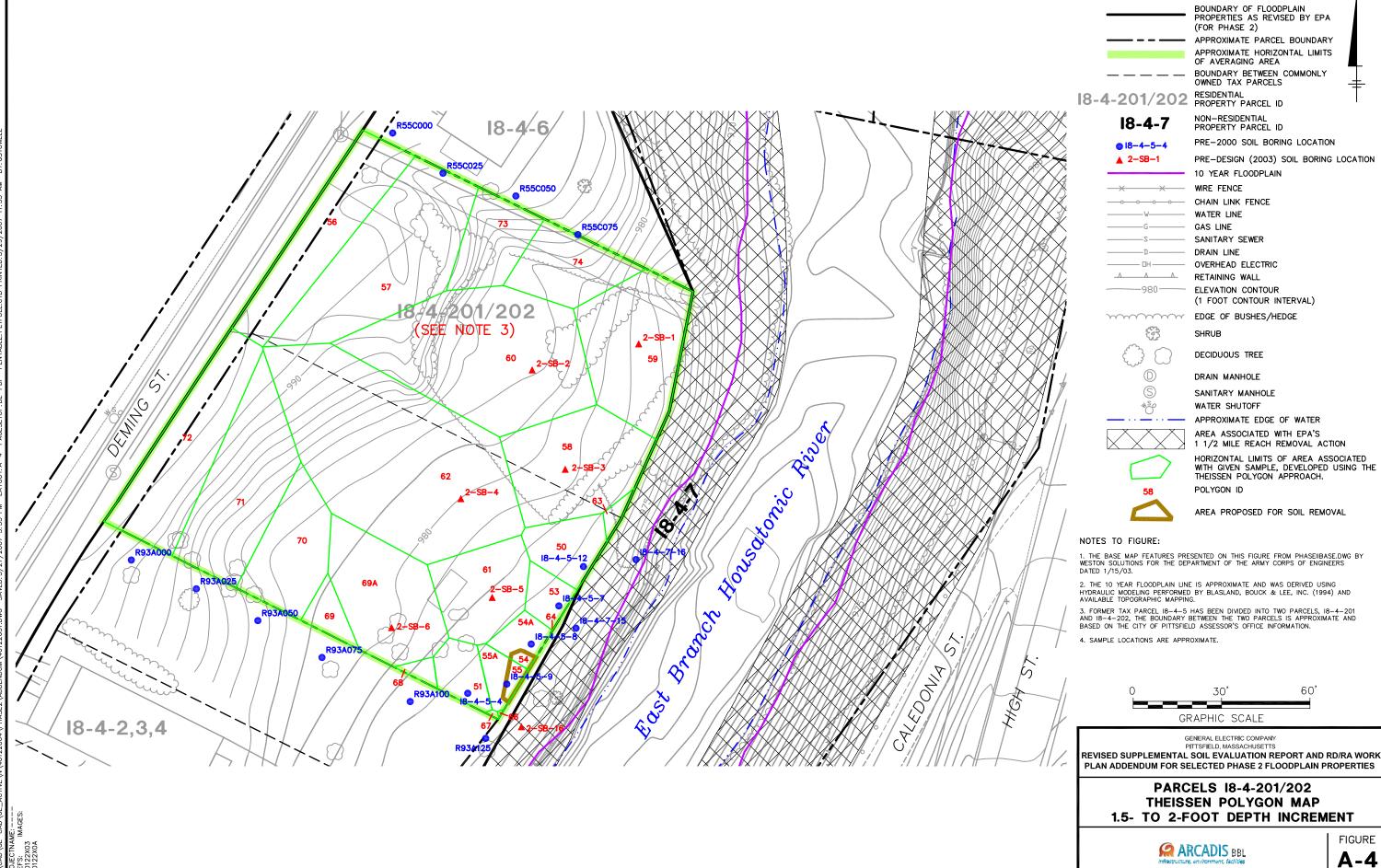




A-2



A-3



FIGURE

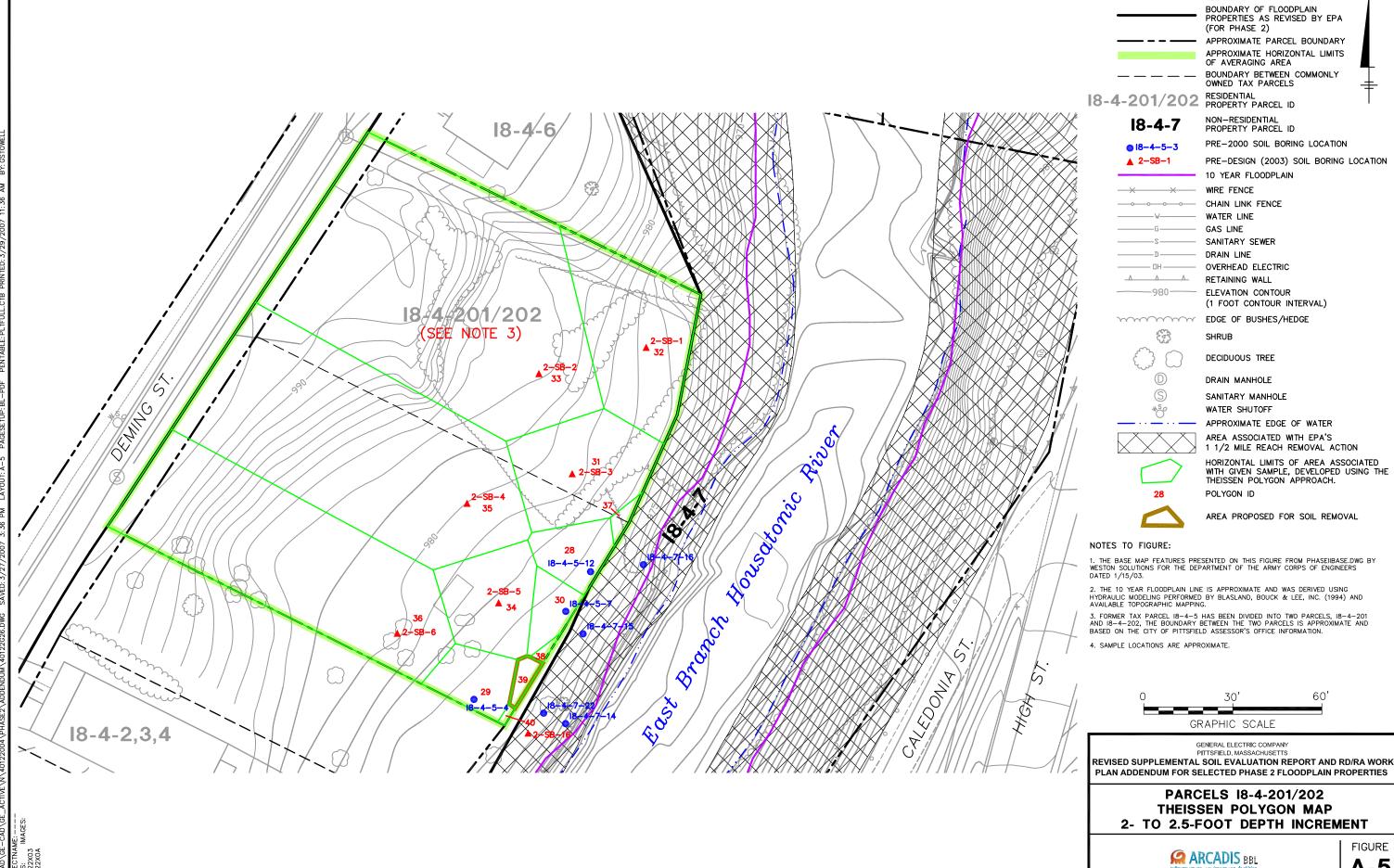
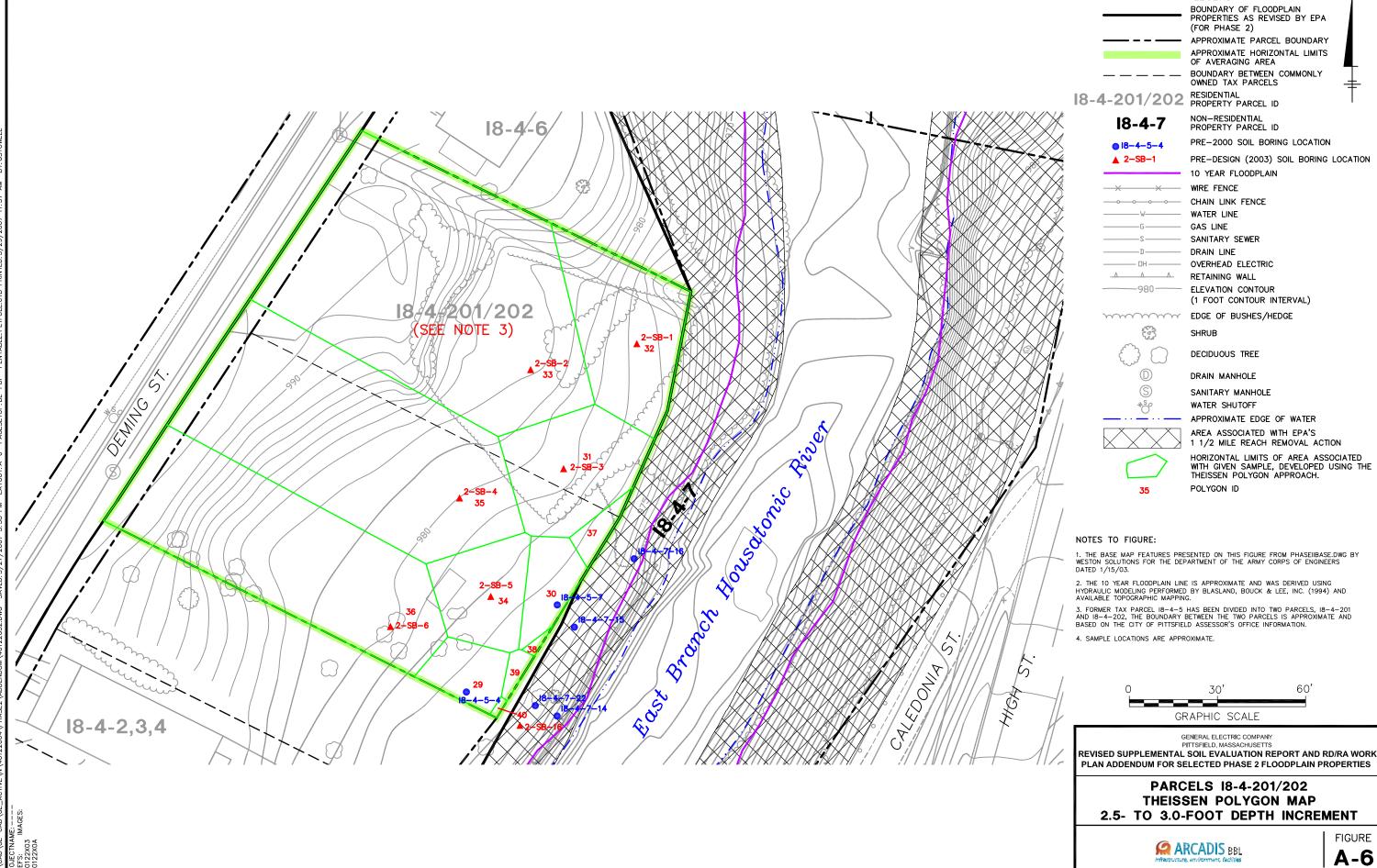
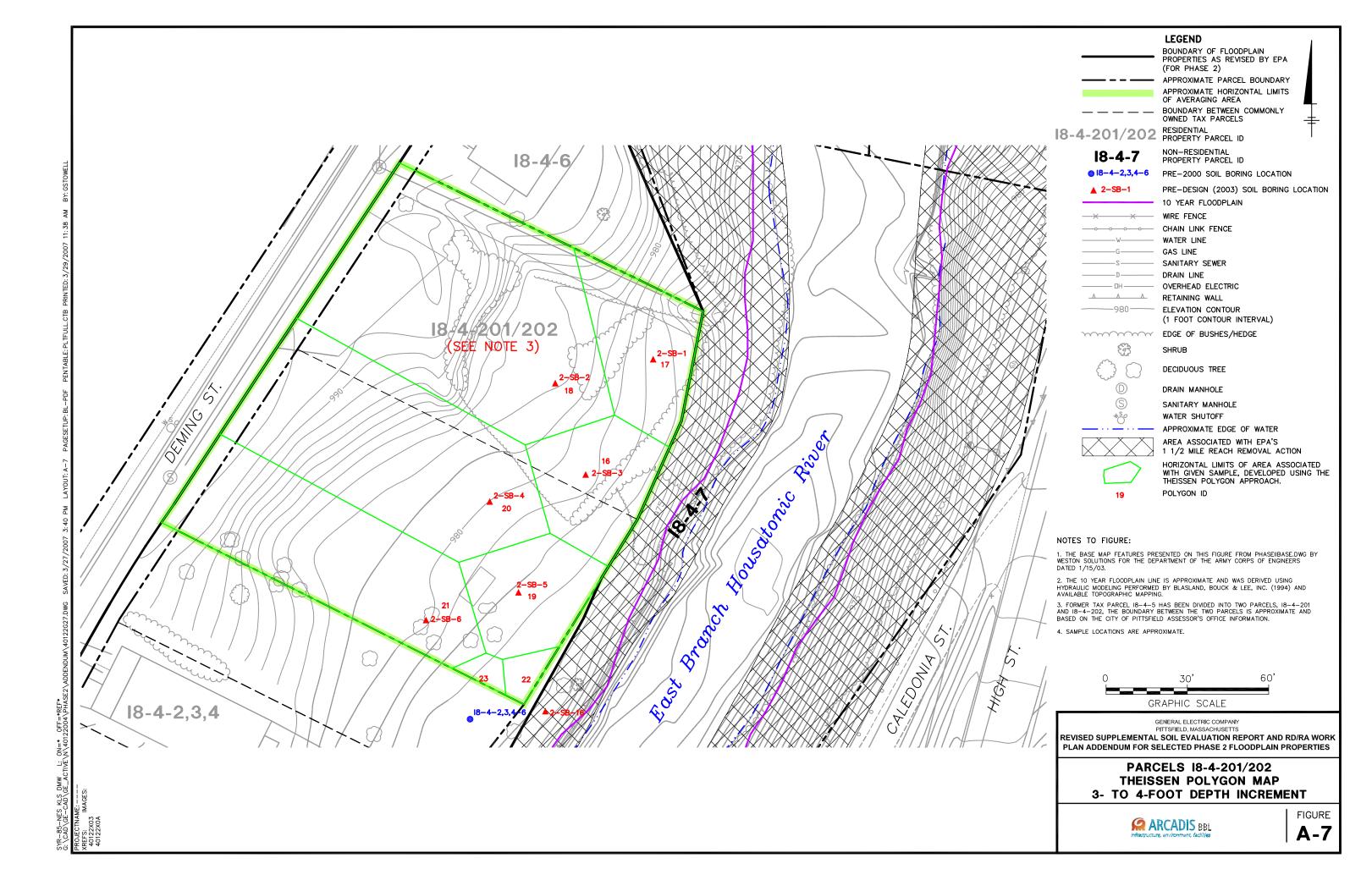
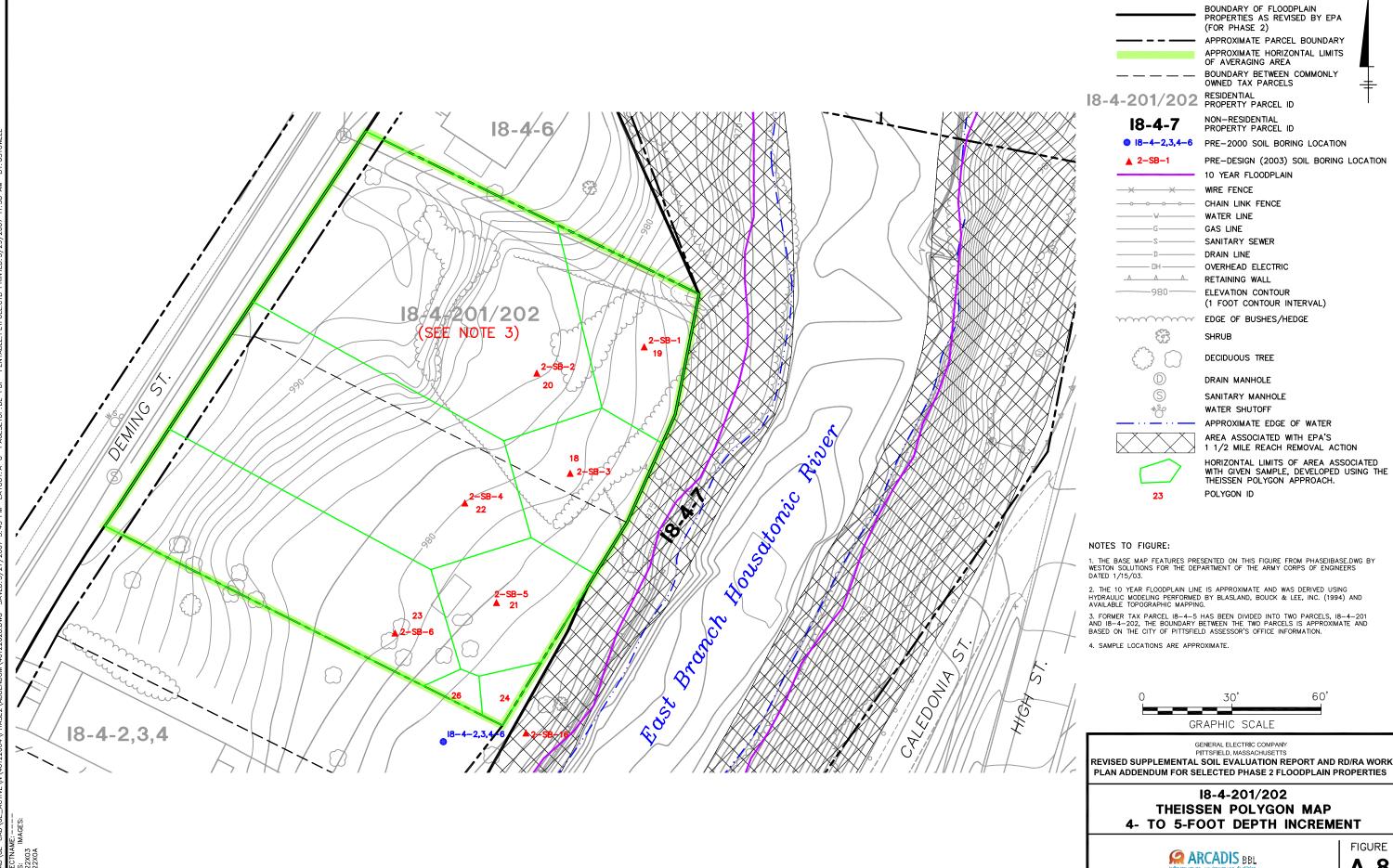


FIGURE A-5

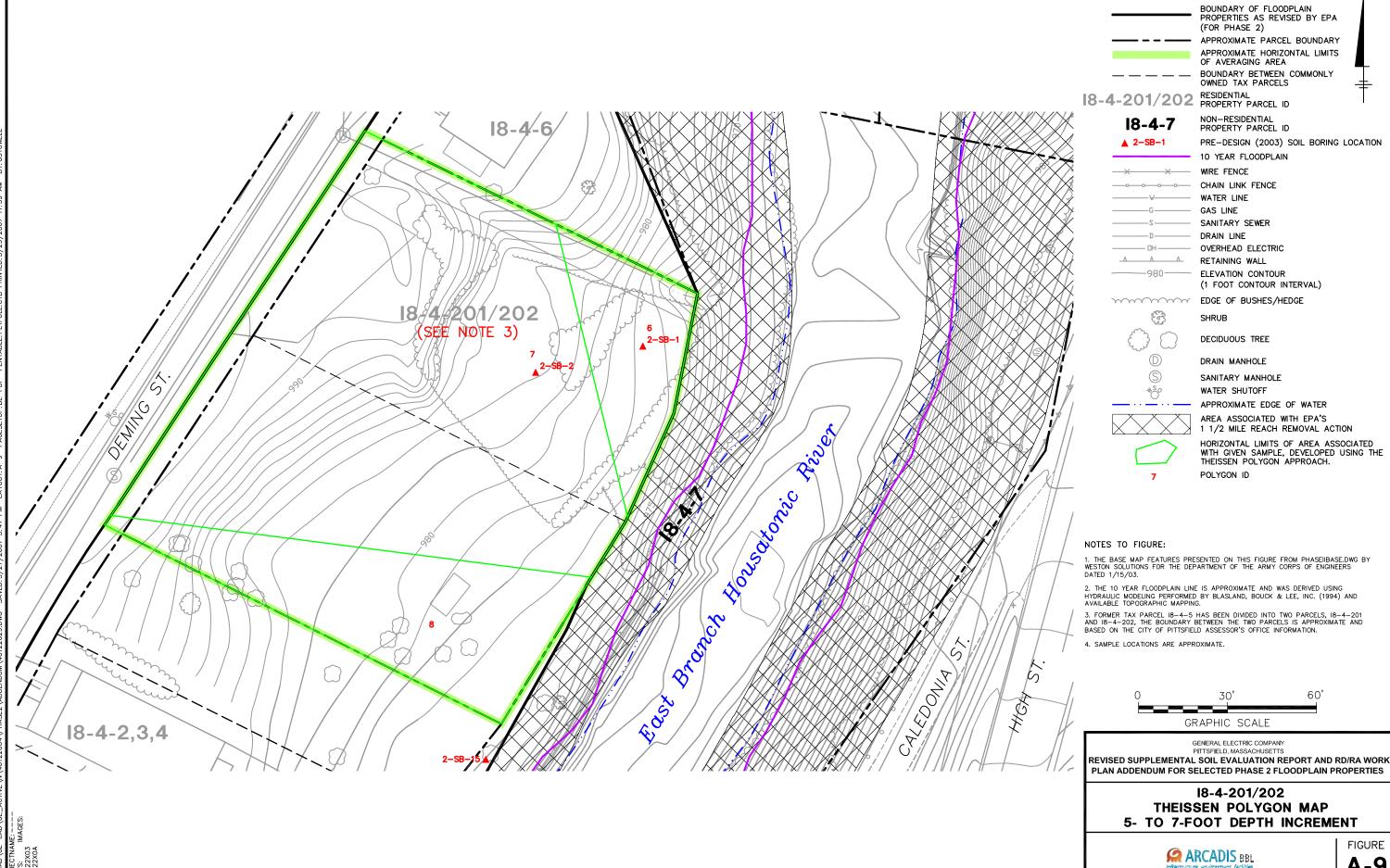


FIGURE





A-8



FIGURE

Parcels 18-4-2, -3, -4



REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	1, 1A	37	0 - 1	0.49	1.35	0.49	0.66
18-4-2,3,4-3	11	323	0 - 0.5 0.5 - 1	0.64 0.25	11.96	0.45	5.32
18-4-2,3,4-4	12	429	0 - 0.5 0.5 - 1	0.128 0.05	15.88	0.09	1.41
18-4-2,3,4-5	13	467	0 - 0.5 0.5 - 1	0.716 0.462	17.28	0.59	10.18
18-4-2,3,4-8	14	157	0 - 0.5 0.5 - 1	3.31 3.28	5.80	3.30	19.11
18-4-2,3,4-9	15	41	0 - 0.5 0.5 - 1	31.2 75.5	1.50	53.35	80.17
18-4-2,3,4-11	4	244	0 - 0.5 0.5 - 1	0.198 0.327	9.05	0.26	2.38
18-4-2,3,4-12	5	11	0 - 0.5 0.5 - 1	19.6 1.32	0.40	10.46	4.15
I8-4-2,3,4-13	6	31	0 - 0.5 0.5 - 1	0.171 0.05	1.16	0.11	0.13
I8-4-2,3,4-15	7	134	0 - 0.5 0.5 - 1	0.745 0.193	4.95	0.47	2.32
I8-4-2,3,4-16	8	42	0 - 0.5 0.5 - 1	3.27 2.37	1.54	2.82	4.36
I8-4-2,3,4-18	9	187	0 - 0.5 0.5 - 1	1.61 0.65	6.92	1.13	7.82
I8-4-2,3,4-19	10	224	0 - 0.5 0.5 - 1	5.68 3.12	8.29	4.40	36.49
R93A000	17	667	0 - 0.5 0.5 - 1	0.25 0.3	24.70	0.28	6.79
R93A025	18	565	0 - 0.5 0.5 - 1	0.25 0.25	20.92	0.25	5.23
R93A050	19	514	0 - 0.5 0.5 - 1	0.25 0.3	19.02	0.28	5.23
R93A075	20	408	0 - 0.5 0.5 - 1	0.25 0.25	15.10	0.25	3.78
R93A100	21, 37	721	0 - 0.5 0.5 - 1	0.7 0.5	26.70	0.60	16.02
R93A125	38	318	0 - 0.5 0.5 - 1	0.1485 0.25	11.78	0.20	2.35
R93B000	22	723	0 - 0.5 0.5 - 1	10 1.4	26.76	5.70	152.54
R93B025	23	540	0 - 0.5 0.5 - 1	1 0.25	20.00	0.63	12.50
R93B050	24	430	0 - 0.5 0.5 - 1	0.5 0.25	15.94	0.38	5.98
R93B075	25	479	0 - 0.5 0.5 - 1	0.4 0.164	17.74	0.28	5.00
R93B100	26, 39	762	0 - 0.5 0.5 - 1	0.25 0.25	28.23	0.25	7.06
R93B125	40	320	0 - 0.5 0.5 - 1	27 76	11.86	51.50	611.03
R93C000	27	630	0 - 0.5 0.5 - 1	6.6 0.3	23.34	3.45	80.51
R93C075	28	681	0 - 0.5 0.5 - 1	1.5 0.4	25.22	0.95	23.95
R93C100	29, 46, 47	397	0 - 0.5 0.5 - 1	0.3 0.35	14.70	0.33	4.78
R93C125	41	280	0 - 0.5 0.5 - 1	0.3 0.25	10.37	0.28	2.85

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 1-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
R93D000	30	635	0 - 0.5	0.25	23.50	0.25	5.88
			0.5 - 1	0.25			
R93D050	31	1,042	0 - 0.5	0.3	38.61	0.28	10.62
			0.5 - 1	0.25			
R93D075	32	450	0 - 0.5	0.4	16.67	0.33	5.42
			0.5 - 1	0.25			
R93D100	43	673	0 - 0.5	0.25	24.94	0.25	6.24
			0.5 - 1	0.25			
R93D125	44	250	0 - 0.5	0.25	9.26	0.25	2.32
			0.5 - 1	0.25			
R93E000	33	324	0 - 0.5	0.3	11.99	0.28	3.30
			0.5 - 1	0.25			
R93E025	34	268	0 - 0.5	0.3	9.93	0.28	2.73
			0.5 - 1	0.25			
R93E050	35	166	0 - 0.5	0.1395	6.15	0.22	1.35
			0.5 - 1	0.3			
R93E075	36	66	0 - 0.5	0.6	2.46	0.45	1.11
			0.5 - 1	0.3			
R93E100	45	5	0 - 0.5	0.3	0.20	0.28	0.05
			0.5 - 1	0.25			
Totals:		14,640			542.22		1,159.13
					Volume Weig	hted Average:	2.14

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- $2. \ \ \text{For instances where a duplicate sample was available, the average of the samples was included in table.}$
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1- TO 1.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc TIMES Total Volume
2-SB-6	1	37	1 - 1.5	0.068	0.68	0.07	0.05
18-4-2,3,4-2	13	137	1 - 1.5	13.1	2.53	13.10	33.12
18-4-2,3,4-5	14	488	1 - 1.5	0.349	9.04	0.35	3.15
18-4-2,3,4-6	15	20	1 - 1.5	1.06	0.38	1.06	0.40
18-4-2,3,4-7	16	74	1 - 1.5	6.9	1.37	6.90	9.47
18-4-2,3,4-8	17	222	1 - 1.5	0.724	4.12	0.72	2.98
18-4-2,3,4-9	18	82	1 - 1.5	30.4	1.52	30.40	46.11
18-4-2,3,4-10	4	1	1 - 1.5	798	0.01	798.00	11.62
18-4-2,3,4-12	5	260	1 - 1.5	0.408	4.81	0.41	1.96
18-4-2,3,4-13	6	333	1 - 1.5	0.05	6.17	0.05	0.31
18-4-2,3,4-14	7	92	1 - 1.5	0.05	1.71	0.05	0.09
18-4-2,3,4-15	8	181	1 - 1.5	0.05	3.35	0.05	0.17
18-4-2,3,4-16	9	122	1 - 1.5	0.173	2.27	0.17	0.39
18-4-2,3,4-17	10	96	1 - 1.5	1.12	1.78	1.12	1.99
18-4-2,3,4-18	11	372	1 - 1.5	0.185	6.89	0.19	1.27
18-4-2,3,4-19	12	334	1 - 1.5	0.05	6.19	0.05	0.31
R93A000	20	667	1 - 1.5	0.35	12.35	0.35	4.32
R93A025	21	565	1 - 1.5	0.25	10.46	0.25	2.62
R93A050	22	581	1 - 1.5	0.3	10.75	0.30	3.23
R93A075	23	441	1 - 1.5	0.25	8.16	0.25	2.04
R93A100	24, 42	492	1 - 1.5	0.35	9.11	0.35	3.19
R93A125	43	318	1 - 1.5	0.25	5.89	0.25	1.47
R93B000	25	723	1 - 1.5	0.3	13.38	0.30	4.01
R93B025	26	540	1 - 1.5	0.3	10.00	0.30	3.00
R93B050	27	578	1 - 1.5	0.25	10.71	0.25	2.68
R93B075	28	638	1 - 1.5	0.3	11.82	0.30	3.55
R93B100	29, 44	452	1 - 1.5	0.25	8.38	0.25	2.09
R93B125	45	320	1 - 1.5	53	5.93	53.00	314.43
R93C000	30	630	1 - 1.5	0.25	11.67	0.25	2.92
R93C075	31	723	1 - 1.5	0.3	13.39	0.30	4.02
R93C100	32, 49, 50	227	1 - 1.5	0.181	4.20	0.18	0.76
R93C125	33, 46	244	1 - 1.5	0.25	4.52	0.25	1.13
R93D000	34	635	1 - 1.5	0.3	11.75	0.30	3.53
R93D050	35	1,042	1 - 1.5	0.25	19.31	0.25	4.83
R93D075	36	619	1 - 1.5	0.3	11.45	0.30	3.44
R93D100	37, 51, 53	335	1 - 1.5	0.25	6.20	0.25	1.55
R93D125	47	193	1 - 1.5	0.3	3.58	0.30	1.07
R93E000	38	324	1 - 1.5	0.3	6.00	0.30	1.80
R93E025	39	268	1 - 1.5	0.3	4.96	0.30	1.49
R93E050	40	166	1 - 1.5	0.3	3.08	0.30	0.92
R93E075	41	66	1 - 1.5	0.25	1.23	0.25	0.31
R93E100	48	1	1 - 1.5	0.25	0.01	0.25	0.00
Totals:	-	14,640		-	271.11		487.77
	1		1		Volume Weigl		1.80

1.5- TO 2-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	1	37	1.5 - 2	0.068	0.68	0.07	0.05
18-4-2,3,4-2	10	327	1.5 - 2	1.44	6.06	1.44	8.72
18-4-2,3,4-5	11	493	1.5 - 2	0.146	9.12	0.15	1.33
18-4-2,3,4-6	12	20	1.5 - 2	46.1	0.38	46.10	17.41
18-4-2,3,4-7	13	74	1.5 - 2	9.8	1.37	9.80	13.45

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1.5- TO 2-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
18-4-2,3,4-8	14	302	1.5 - 2	0.05	5.59	0.05	0.28
18-4-2,3,4-9	46	431	1.5 - 2	3.33	7.99	3.33	26.60
18-4-2,3,4-10	5	1	1.5 - 2	195	0.01	195.00	2.85
18-4-2,3,4-12	6	261	1.5 - 2	0.116	4.84	0.12	0.56
18-4-2,3,4-13	7	333	1.5 - 2	0.05	6.17	0.05	0.31
18-4-2,3,4-14	8	93	1.5 - 2	0.05	1.73	0.05	0.09
18-4-2,3,4-15	9	216	1.5 - 2	0.05	3.99	0.05	0.20
R93A000	16	667	1.5 - 2	0.25	12.35	0.25	3.09
R93A025	17	565	1.5 - 2	0.25	10.46	0.25	2.62
R93A050	18	581	1.5 - 2	0.25	10.75	0.25	2.69
R93A075	19	441	1.5 - 2	0.3	8.16	0.30	2.45
R93A100	20, 38	492	1.5 - 2	0.3	9.11	0.30	2.73
R93A125	39	318	1.5 - 2	0.25	5.89	0.25	1.47
R93B000	21	723	1.5 - 2	0.3	13.38	0.30	4.01
R93B025	22	540	1.5 - 2	0.25	10.00	0.25	2.50
R93B050	23	578	1.5 - 2	0.25	10.71	0.25	2.68
R93B075	24	701	1.5 - 2	0.3	12.99	0.30	3.90
R93B100	25, 40	640	1.5 - 2	0.25	11.85	0.25	2.96
R93B125	41	320	1.5 - 2	8.2	5.93	8.20	48.65
R93C000	26	630	1.5 - 2	0.3	11.67	0.30	3.50
R93C075	27	776	1.5 - 2	0.25	14.37	0.25	3.59
R93C100	28, 42	352	1.5 - 2	0.35	6.52	0.35	2.28
R93C125	29, 43	244	1.5 - 2	0.25	4.52	0.25	1.13
R93D000	30	635	1.5 - 2	0.25	11.75	0.25	2.94
R93D050	31	1,042	1.5 - 2	0.3	19.31	0.30	5.79
R93D075	32	648	1.5 - 2	0.3	12.00	0.30	3.60
R93D100	33, 47	242	1.5 - 2	0.1335	4.48	0.13	0.60
R93D125	44	93	1.5 - 2	0.6	1.71	0.60	1.03
R93E000	34	324	1.5 - 2	0.25	6.00	0.25	1.50
R93E025	35	268	1.5 - 2	0.3	4.96	0.30	1.49
R93E050	36	166	1.5 - 2	0.25	3.08	0.25	0.77
R93E075	37	66	1.5 - 2	0.3	1.23	0.30	0.37
Totals:		14,640			271.11		180.17
			1		Volume Weigl	nted Average:	0.66

2- TO 2.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	1, 15, 16	4,003	2 - 2.5	0.068	74.12	0.07	5.04
2-SB-16	13	1,398	2 - 2.5	0.219	25.89	0.22	5.67
I8-4-1-5	2	44	2 - 2.5	0.251	0.81	0.25	0.20
18-4-1-9	4	247	2 - 2.5	0.408	4.57	0.41	1.87
18-4-2,3,4-2	8	360	2 - 2.5	1.37	6.67	1.37	9.14
18-4-2,3,4-6	9	309	2 - 2.5	10.4	5.72	10.40	59.47
18-4-2,3,4-7	10	834	2 - 2.5	10.3	15.45	10.30	159.10
18-4-2,3,4-9	14	4,748	2 - 2.5	3.54	87.93	3.54	311.28
18-4-2,3,4-10	5	1	2 - 2.5	24.8	0.01	24.80	0.36
18-4-2,3,4-12	6	1,991	2 - 2.5	1.17	36.87	1.17	43.13
18-4-2,3,4-14	7	631	2 - 2.5	0.112	11.68	0.11	1.31
18-4-5-4	11	35	2 - 2.5	1.34	0.65	1.34	0.87
18-4-7-21	12	40	2 - 2.5	8.17	0.75	8.17	6.11
Totals:		14,640			271.11		603.55
<u>.</u>					Volume Weig	hted Average:	2.23

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

2.5- TO 3-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	1	3,990	2.5 - 3	0.068	73.88	0.07	5.02
2-SB-16	13	837	2.5 - 3	0.219	15.50	0.22	3.39
18-4-1-9	3	290	2.5 - 3	0.356	5.37	0.36	1.91
18-4-2,3,4-1	4	2	2.5 - 3	14.5	0.05	14.50	0.65
18-4-2,3,4-2	8	360	2.5 - 3	3.45	6.67	3.45	23.02
18-4-2,3,4-6	9	492	2.5 - 3	4.64	9.12	4.64	42.31
18-4-2,3,4-7	10	1,032	2.5 - 3	4.48	19.12	4.48	85.64
18-4-2,3,4-9	15	4,749	2.5 - 3	4.87	87.94	4.87	428.27
18-4-2,3,4-10	5	1	2.5 - 3	78.7	0.02	78.70	1.70
18-4-2,3,4-12	6	2,102	2.5 - 3	0.5	38.93	0.50	19.46
18-4-2,3,4-14	7	631	2.5 - 3	0.05	11.68	0.05	0.58
18-4-5-4	11	88	2.5 - 3	0.05	1.63	0.05	0.08
18-4-7-21	12	65	2.5 - 3	5.34	1.21	5.34	6.46
Totals:		14,640		-	271.10	-	618.52
					Volume Weig	hted Average:	2.28

3- TO 3.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	3	4,403	3 - 3.5	0.032	81.54	0.03	2.61
2-SB-13	1, 18, 19	686	3 - 3.5	0.097	12.71	0.10	1.23
2-SB-16	10	500	3 - 3.5	0.027	9.27	0.03	0.25
18-4-1-7	6	32	3 - 3.5	15.8	0.59	15.80	9.28
18-4-2,3,4-1	12	877	3 - 3.5	12.4	16.24	12.40	201.35
18-4-2,3,4-6	14	1,331	3 - 3.5	8.2	24.65	8.20	202.16
18-4-2,3,4-9	15	6,486	3 - 3.5	0.18	120.12	0.18	21.62
18-4-2,3,4-10	7	119	3 - 3.5	14.605	2.20	14.61	32.13
18-4-7-21	8	205	3 - 3.5	1.99	3.79	1.99	7.54
Totals:		14,640			271.11	-	478.18
	•	•			Volume Weig	hted Average:	1.76

3.5- TO 4-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	3	4,403	3.5 - 4	0.032	81.54	0.03	2.61
2-SB-13	1, 13	538	3.5 - 4	0.097	9.97	0.10	0.97
2-SB-16	5A	2	3.5 - 4	0.027	0.03	0.03	0.00
18-4-1-7	6	32	3.5 - 4	11.6	0.59	11.60	6.81
18-4-2,3,4-1	7	1,087	3.5 - 4	1.84	20.13	1.84	37.03
18-4-2,3,4-6	9	1,539	3.5 - 4	1.3	28.49	1.30	37.04
18-4-2,3,4-9	14	6,486	3.5 - 4	3.85	120.12	3.85	462.46
18-4-2,3,4-10	8	119	3.5 - 4	28.5	2.20	28.50	62.70
18-4,2,3,4-20	5	143	3.5 - 4	4.87	2.65	4.87	12.90
18-4-7-4	11	85	3.5 - 4	83.2	1.57	83.20	130.21
18-4-7-21	10	207	3.5 - 4	6.58	3.83	6.58	25.18
Totals:		14,640			271.11		777.92
					Volume Weig	hted Average:	2.87

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

4- TO 5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	4	4,403	4 - 5	0.032	163.09	0.03	5.22
2-SB-13	1	460	4 - 5	0.097	17.02	0.10	1.65
2-SB-15	2	115	4 - 5	0.032	4.25	0.03	0.14
2-SB-16	2A	12	4 - 5	0.027	0.45	0.03	0.01
18-4-1-7	6	32	4 - 4.5 4.5 - 5	2.4 7.75	1.17	5.08	5.96
18-4-2,3,4-1	7	1,087	4 - 4.5 4.5 - 5	3.12 0.829	40.25	1.97	79.48
18-4-2,3,4-6	9	1,556	4 - 4.5 4.5 - 5	0.129	57.65	0.36	20.84
18-4-2,3,4-9	13	6,486	4 - 4.5	0.563	240.24	0.90	215.37
18-4-2,3,4-10	8	197	4 - 4.5	1.19	7.31	3.05	22.30
18-4-7-4	11	85	4 - 4.5	11.5	3.13	6.99	21.86
18-4-7-21	10	207	4 - 4.5	3.64	7.65	2.47	18.91
Totals:		14,640			542.22		391.74
*			•		Volume Weig	hted Average:	0.72

SUMMARY - 1- TO X-FOOT (X=5') DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:	-	14,640		-	2,168.89	-	3,537.84
					Volume Weig	hted Average:	1.63

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

TABLE A-7 POST-REMEDIATION CONDITIONS PARCELS I8-4-2, -3, & -4: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-6	1, 1A	37	0 - 1	0.49	1.35	0.49	0.66
18-4-2,3,4-3	11	323	0 - 0.5 0.5 - 1	0.64 0.25	11.96	0.45	5.32
18-4-2,3,4-4	12	429	0 - 0.5 0.5 - 1	0.128 0.05	15.88	0.09	1.41
18-4-2,3,4-5	13	467	0 - 0.5 0.5 - 1	0.716 0.462	17.28	0.59	10.18
18-4-2,3,4-8	14	157	0 - 0.5 0.5 - 1	3.31 3.28	5.80	3.30	19.11
18-4-2,3,4-9	15	41	0 - 0.5 0.5 - 1	0.021 0.021	1.50	0.02	0.03
I8-4-2,3,4-11	4	244	0 - 0.5 0.5 - 1	0.198 0.327	9.05	0.26	2.38
18-4-2,3,4-12	5	11	0 - 0.5 0.5 - 1	0.021	0.40	0.02	0.01
18-4-2,3,4-13	6	31	0 - 0.5 0.5 - 1	0.171 0.05	1.16	0.11	0.13
18-4-2,3,4-15	7	134	0 - 0.5	0.745 0.193	4.95	0.47	2.32
18-4-2,3,4-16	8	42	0 - 0.5 0.5 - 1	3.27 2.37	1.54	2.82	4.36
18-4-2,3,4-18	9	187	0 - 0.5 0.5 - 1	1.61 0.65	6.92	1.13	7.82
18-4-2,3,4-19	10	224	0 - 0.5 0.5 - 1	5.68 3.12	8.29	4.40	36.49
R93A000	17	667	0 - 0.5 0.5 - 1	0.25 0.3	24.70	0.28	6.79
R93A025	18	565	0 - 0.5 0.5 - 1	0.25 0.25	20.92	0.25	5.23
R93A050	19	514	0 - 0.5 0.5 - 1	0.25 0.3	19.02	0.28	5.23
R93A075	20	408	0 - 0.5 0.5 - 1	0.25 0.25	15.10	0.25	3.78
R93A100	21, 37	721	0 - 0.5 0.5 - 1	0.7 0.5	26.70	0.60	16.02
R93A125	38	318	0 - 0.5 0.5 - 1	0.1485 0.25	11.78	0.20	2.35
R93B000	22	723	0 - 0.5 0.5 - 1	10 1.4	26.76	5.70	152.54
R93B025	23	540	0 - 0.5 0.5 - 1	1 0.25	20.00	0.63	12.50
R93B050	24	430	0 - 0.5 0.5 - 1	0.5 0.25	15.94	0.38	5.98
R93B075	25	479	0 - 0.5 0.5 - 1	0.4 0.164	17.74	0.28	5.00
R93B100	26, 39	762	0 - 0.5 0.5 - 1	0.25 0.25	28.23	0.25	7.06
R93B125	40	320	0 - 0.5 0.5 - 1	0.021 0.021	11.86	0.02	0.25
R93C000	27	630	0 - 0.5 0.5 - 1	6.6 0.3	23.34	3.45	80.51
R93C075	28	681	0 - 0.5 0.5 - 1	1.5 0.4	25.22	0.95	23.95
R93C100	29, 46, 47	397	0 - 0.5 0.5 - 1	0.3 0.35	14.70	0.33	4.78
R93C125	41	280	0 - 0.5 0.5 - 1	0.3 0.25	10.37	0.28	2.85

TABLE A-7 POST-REMEDIATION CONDITIONS PARCELS 18-4-2, -3, & -4: 0- TO 1-FOOT DEPTH INCREMENT

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

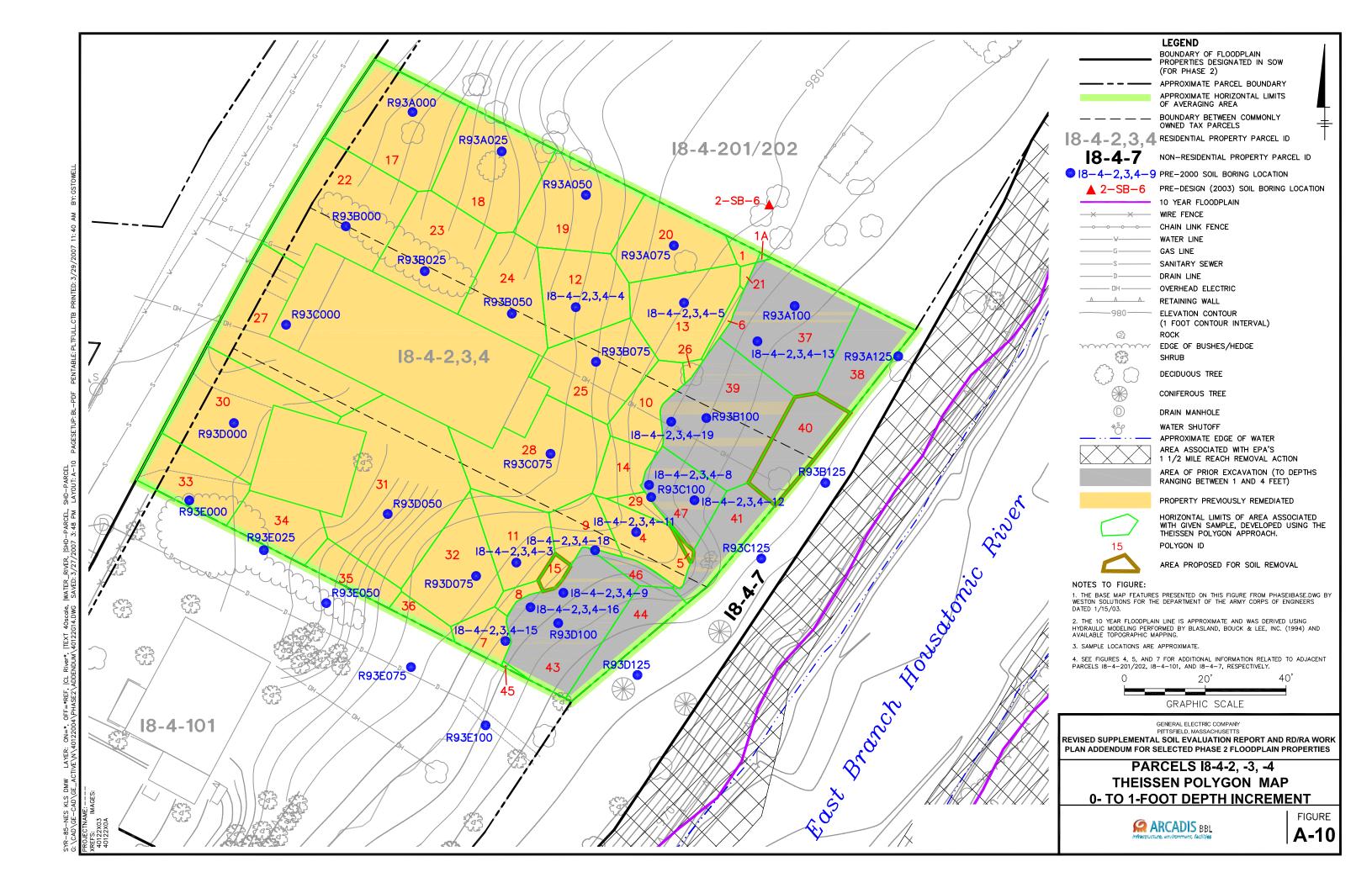
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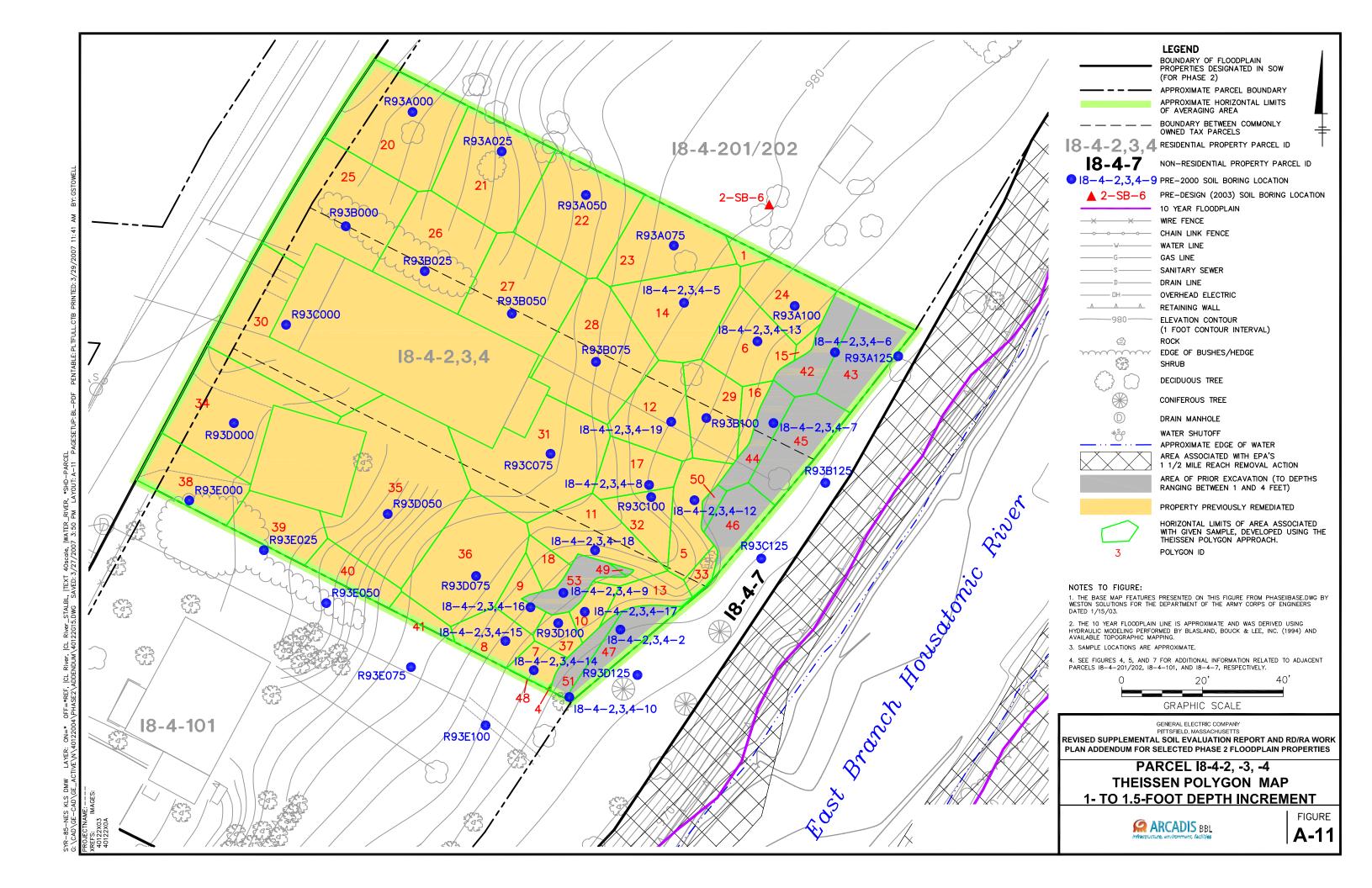
0- TO 1-FOOT DEPTH INCREMENT CONTINUED

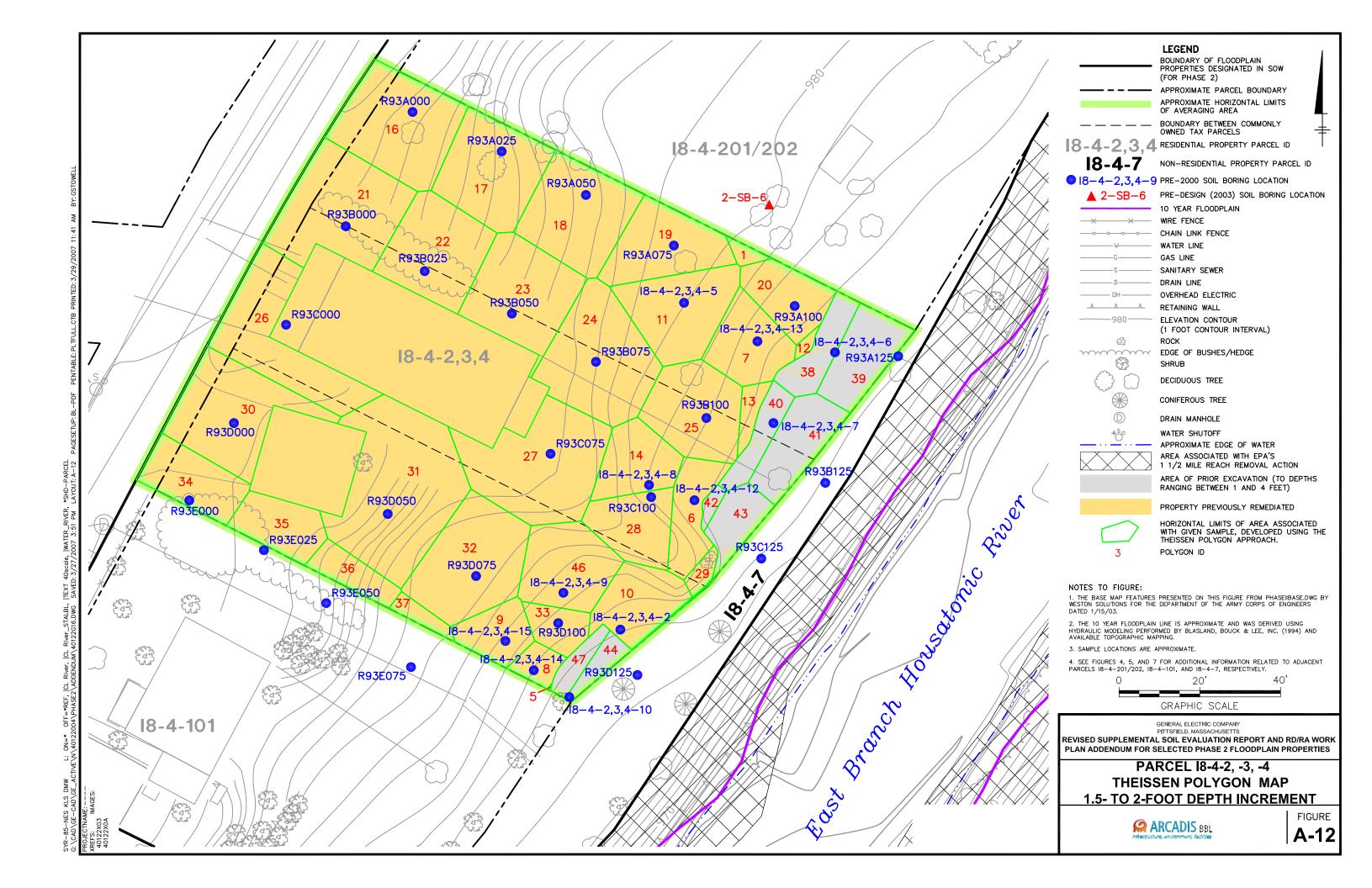
Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
R93D000	30	635	0 - 0.5	0.25	23.50	0.25	5.88
Noobooo			0.5 - 1	0.25	20.00	0.20	0.00
R93D050	31	1,042	0 - 0.5	0.3	38.61	0.28	10.62
11002000		1,012	0.5 - 1	0.25	00.01	0.20	10.02
R93D075	32	450	0 - 0.5	0.4	16.67	0.33	5.42
11002070		100	0.5 - 1	0.25	10.01	0.00	0.12
R93D100	43	673	0 - 0.5	0.25	24.94	0.25	6.24
11002 100		0.0	0.5 - 1	0.25	2	0.20	0.2 1
R93D125	44	250	0 - 0.5	0.25	9.26	0.25	2.32
			0.5 - 1	0.25	0.20		
R93E000	33	324	0 - 0.5	0.3	11.99	0.28	3.30
			0.5 - 1	0.25			
R93E025	34	268	0 - 0.5	0.3	9.93	0.28	2.73
			0.5 - 1	0.25	0.00		•
R93E050	35	166	0 - 0.5	0.1395	6.15	0.22	1.35
			0.5 - 1	0.3	0.10		
R93E075	36	66	0 - 0.5	0.6	2.46	0.45	1.11
			0.5 - 1	0.3	-		
R93E100	45	5	0 - 0.5	0.3	0.20	0.28	0.05
	•		0.5 - 1	0.25			
Totals:	-	14,640			542.22		464.06
					Volume Weig	hted Average:	0.86

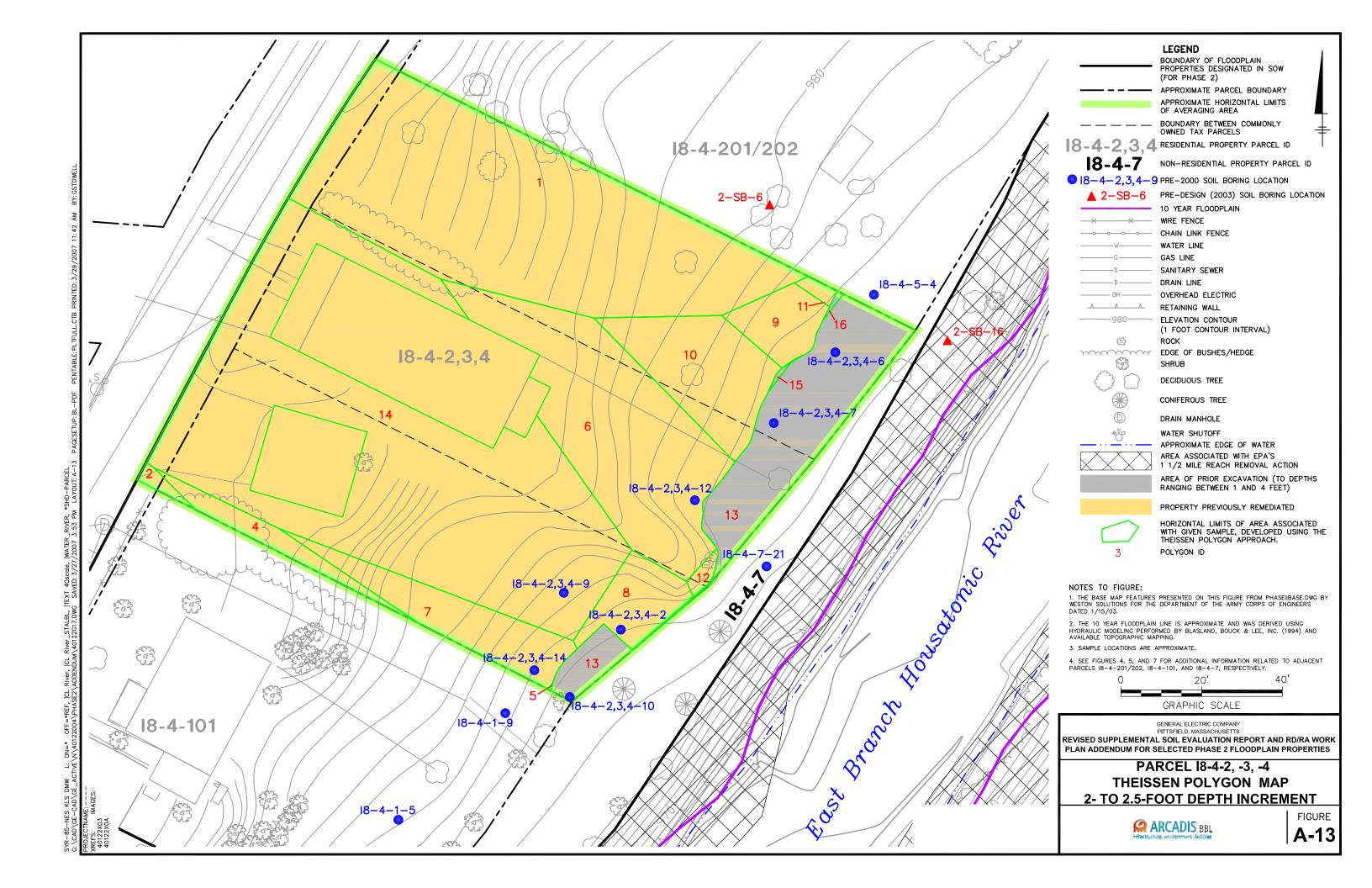
- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.
- 4. Shaded numbers in bold and italics represent the placement of clean backfill material following the performance of the proposed remediation.

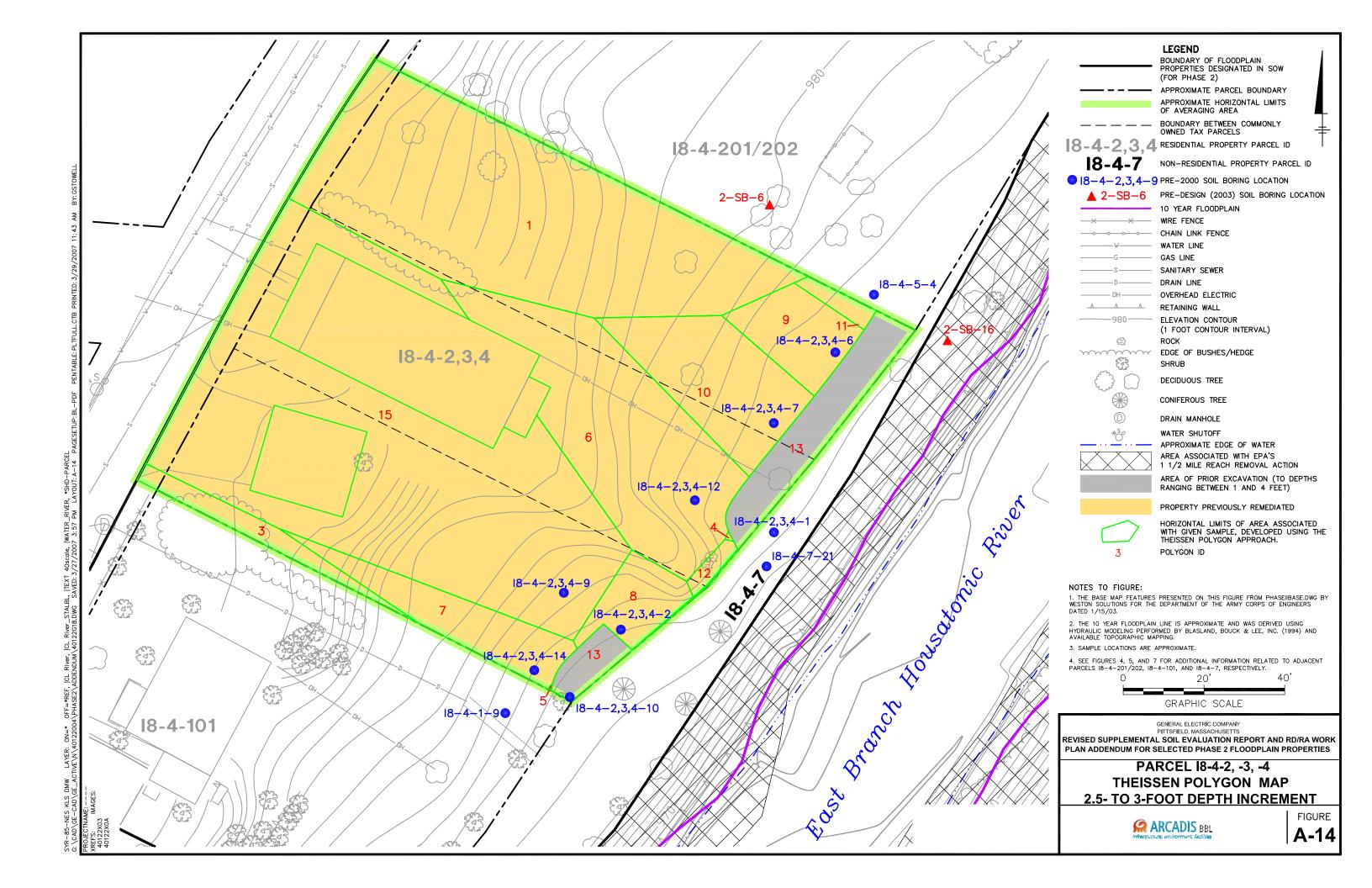
 The backfill concentration corresponds to the average PCB concentration as presented in the CD Sites Backfill Data Set.

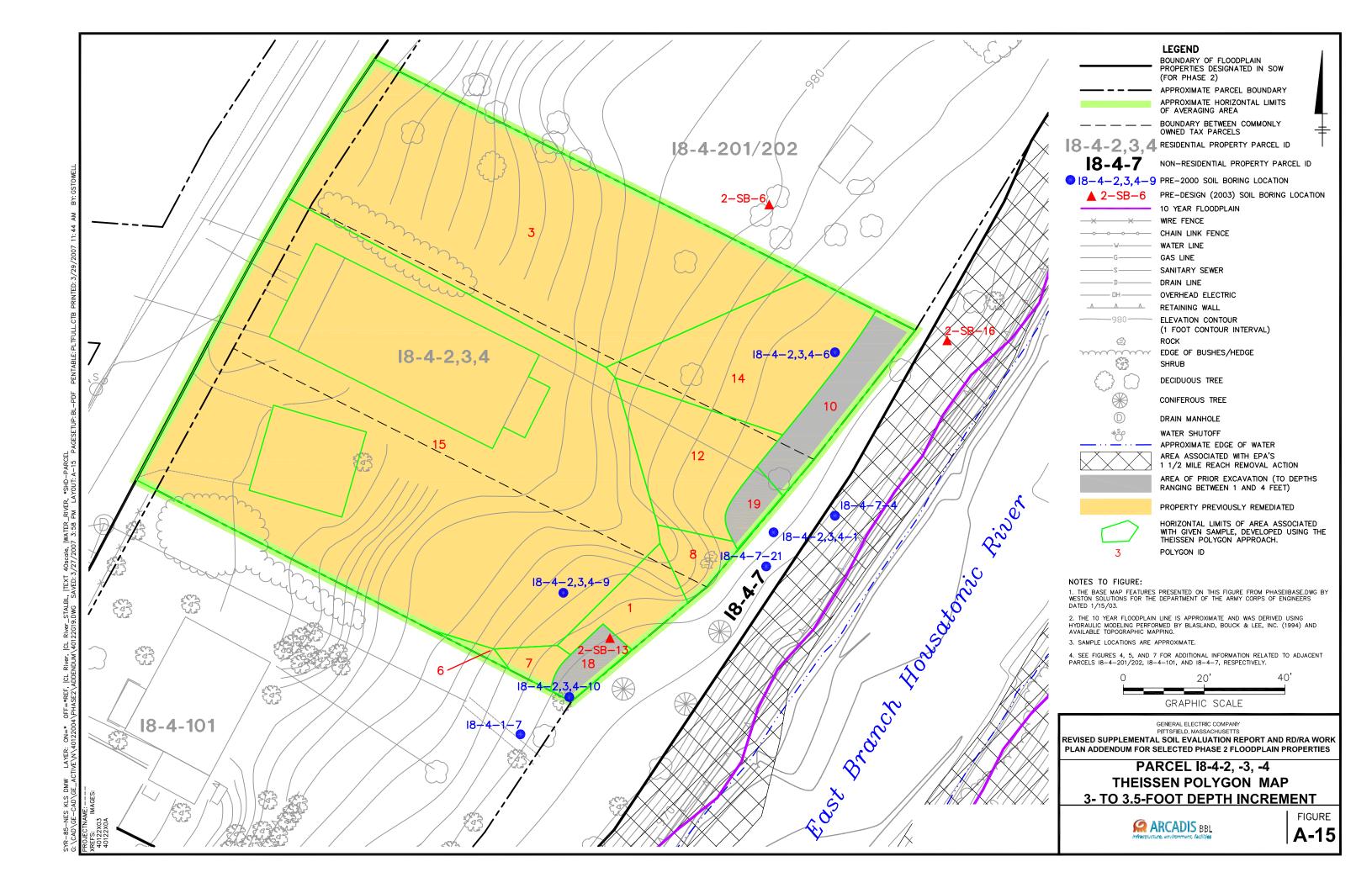


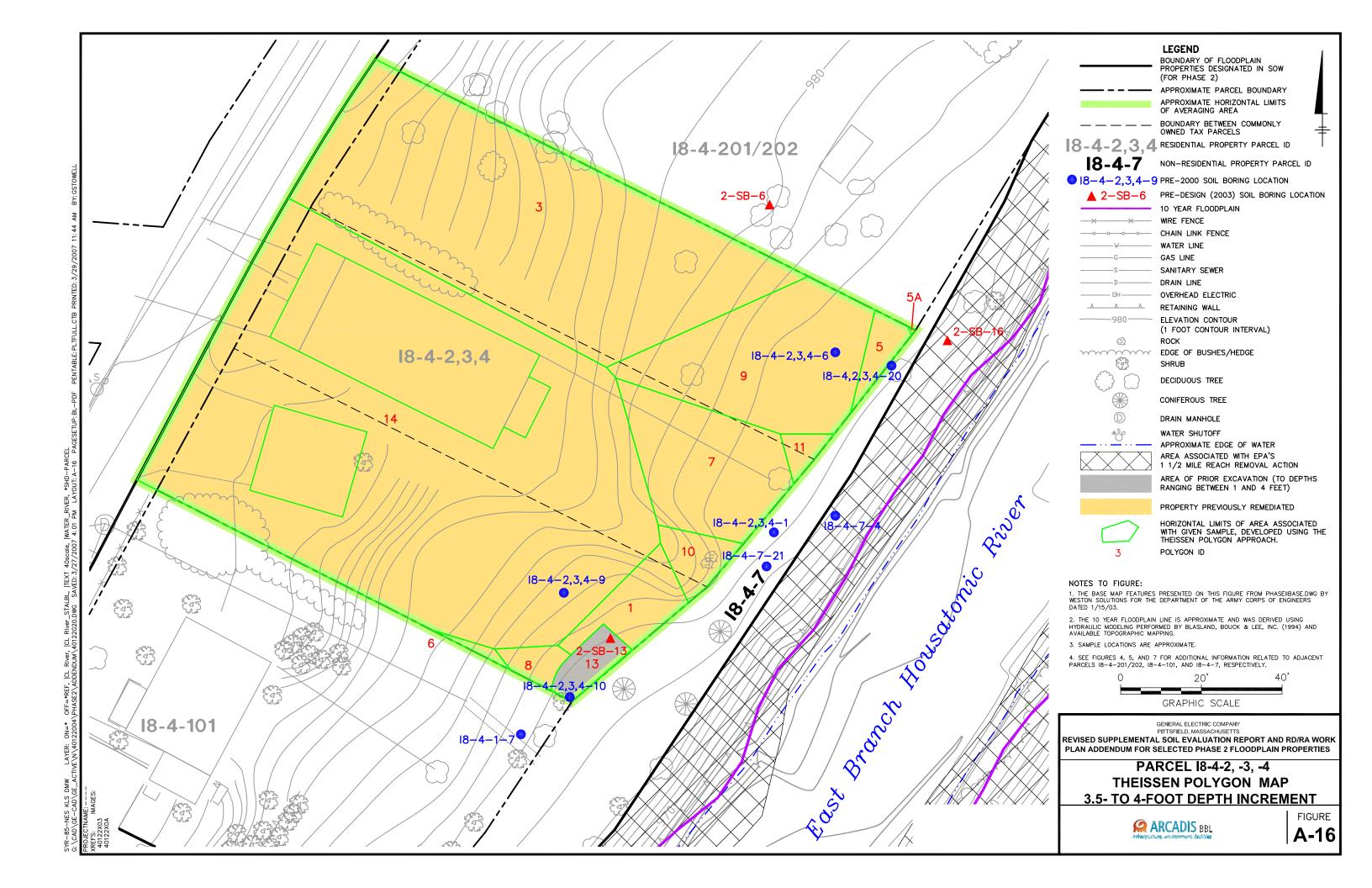


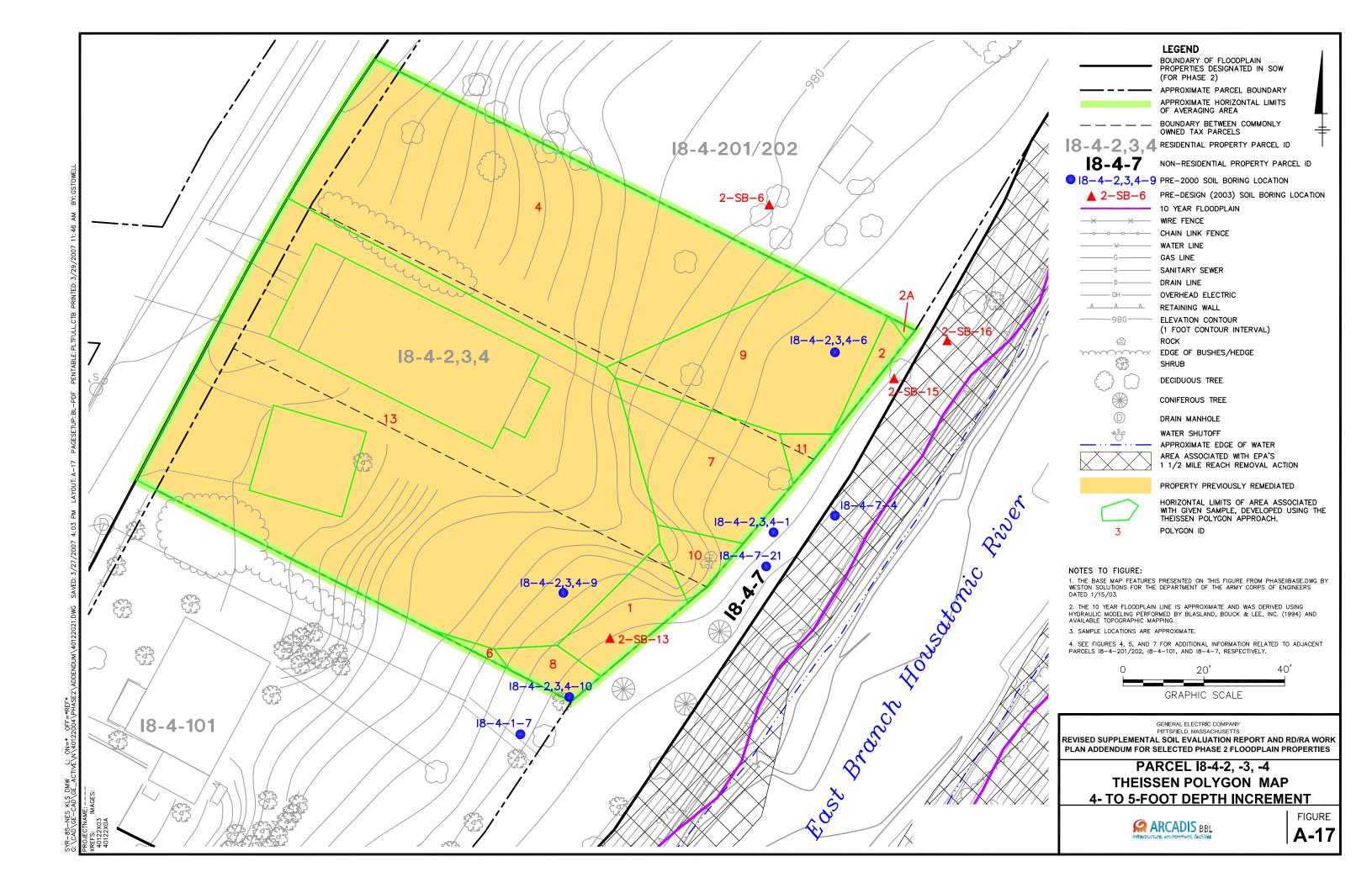












Parcel 18-4-6



REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 0.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
18-4-6-1	48	130	0 - 0.5	0.05	2.40	0.05	0.12
18-4-6-2	47	86	0 - 0.5	0.05	1.59	0.05	0.08
R55A000	51	200	0 - 0.5	0.4	3.71	0.40	1.48
R55A025	39	203	0 - 0.5	0.185	3.75	0.19	0.69
R55A050	40	535	0 - 0.5	0.3	9.90	0.30	2.97
R55B000	41	375	0 - 0.5	0.3	6.95	0.30	2.08
R55B050	42	442	0 - 0.5	0.3	8.18	0.30	2.45
R55B075	43	521	0 - 0.5	0.35	9.65	0.35	3.38
R55C000	44	244	0 - 0.5	0.3	4.51	0.30	1.35
R55C025	50	143	0 - 0.5	0.3	2.64	0.30	0.79
R55C050	45	282	0 - 0.5	0.3	5.22	0.30	1.57
R55C075	46	192	0 - 0.5	0.1825	3.56	0.18	0.65
R55C100	49	198	0 - 0.5	0.25	3.67	0.25	0.92
Totals:		3,549			65.73		18.54
					Volume Weig	hted Average:	0.28

0.5- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	49	76	0.5 - 1	1.19	1.41	1.19	1.68
R55A000	40	200	0.5 - 1	0.3	3.71	0.30	1.11
R55A025	36	203	0.5 - 1	0.25	3.75	0.25	0.94
R55A050	33	535	0.5 - 1	0.25	9.90	0.25	2.48
R55B000	38	375	0.5 - 1	0.1525	6.95	0.15	1.06
R55B050	34	442	0.5 - 1	0.25	8.18	0.25	2.04
R55B075	32	775	0.5 - 1	0.3	14.36	0.30	4.31
R55C000	37	244	0.5 - 1	0.2	4.51	0.20	0.90
R55C025	44	143	0.5 - 1	0.25	2.64	0.25	0.66
R55C050	35	282	0.5 - 1	0.25	5.22	0.25	1.31
R55C075	31	275	0.5 - 1	0.25	5.09	0.25	1.27
Totals:		3,549			65.72		17.76
					Volume Weigl	nted Average:	0.27

SUMMARY - 0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		3,549			131.45		36.30
					Volume Weig	hted Average:	0.28

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

TABLE A-9 EXISTING CONDITIONS PARCEL I8-4-6: 1- TO X-FOOT (X=2) DEPTH INCREMENT

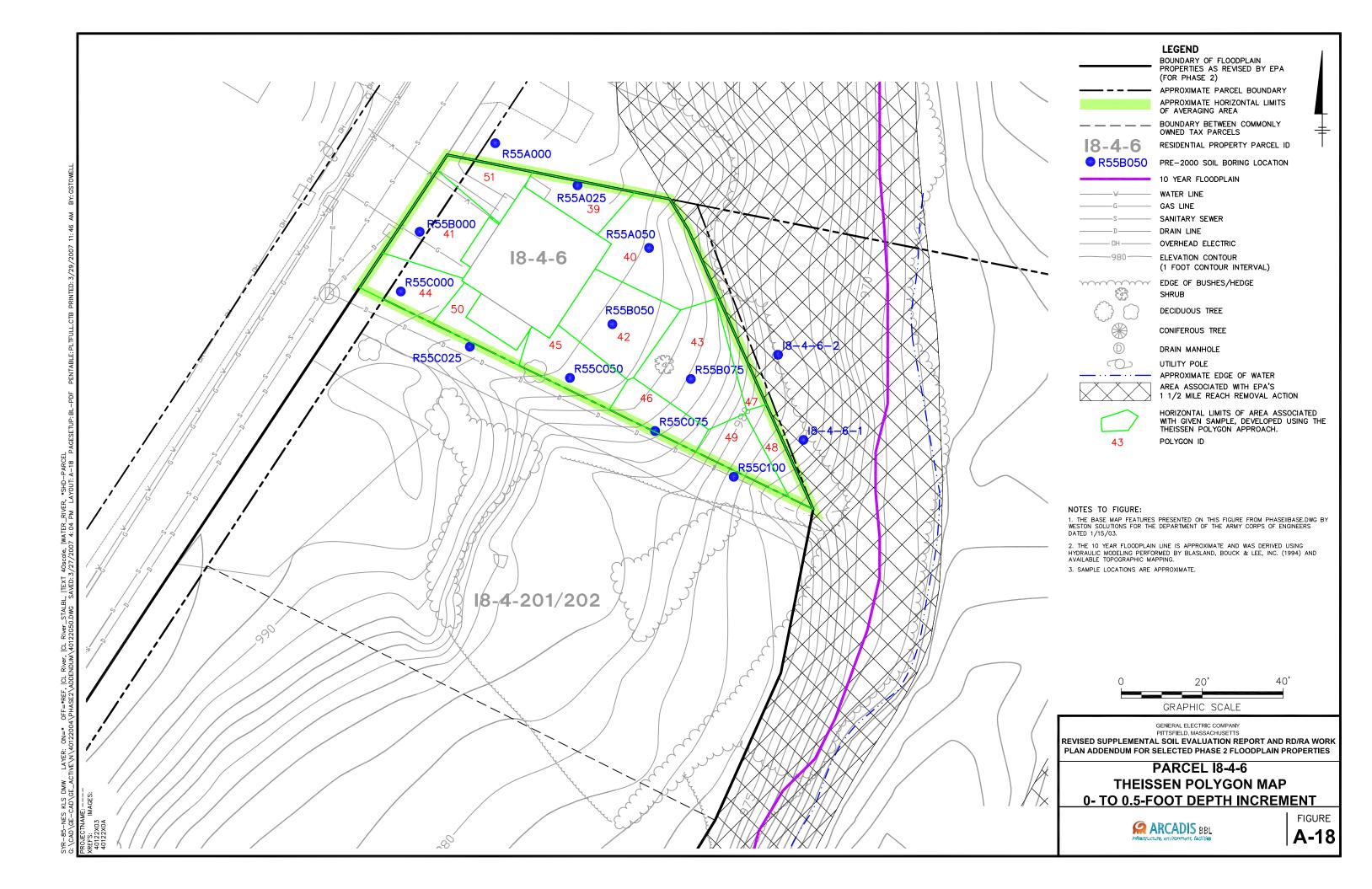
REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

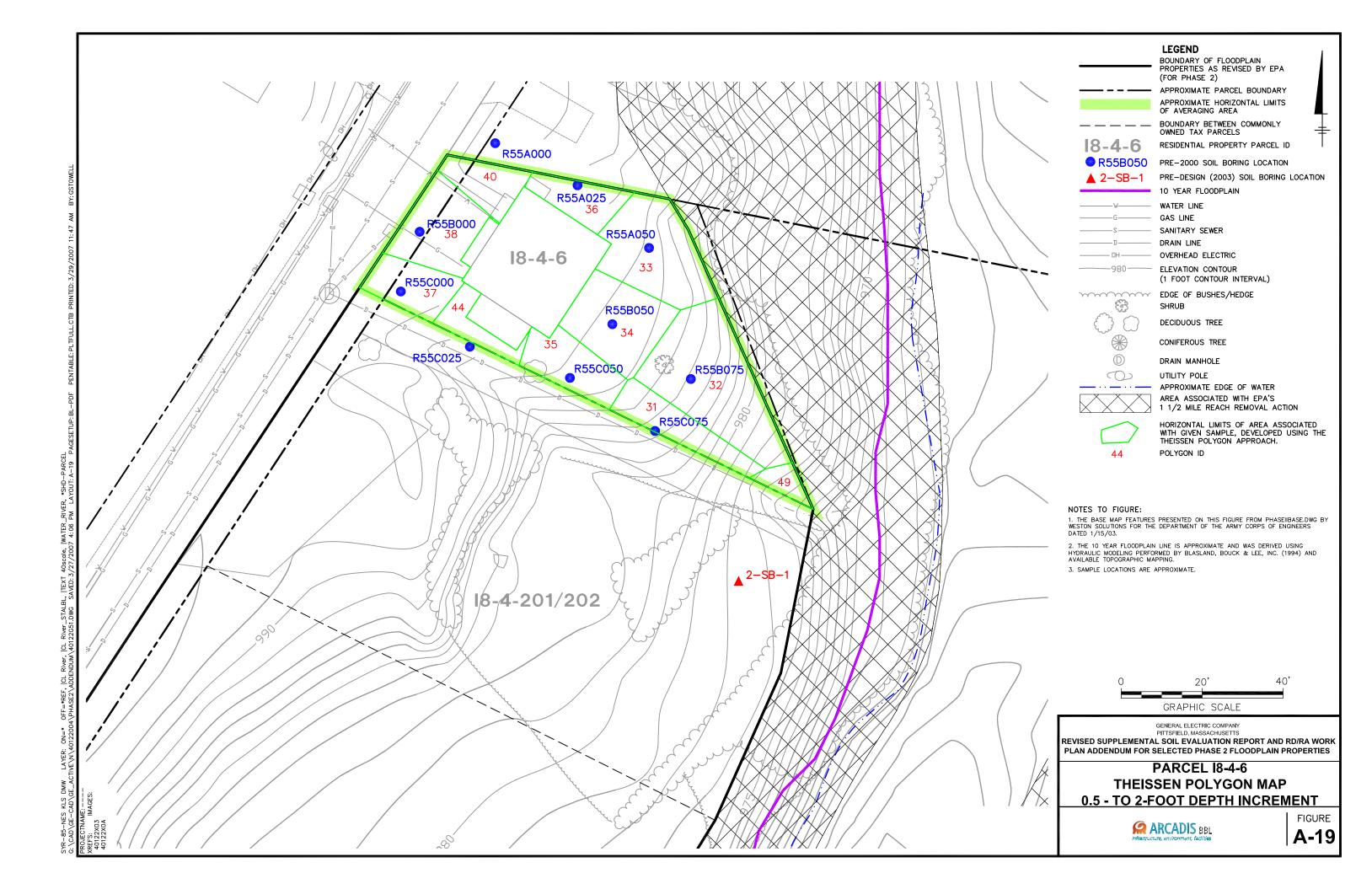
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1- TO 2-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-1	49	76	1 - 3	5.4	2.83	5.40	15.26
R55A000	40	200	1 - 1.5	0.25	7.41	0.28	1.85
KJJA000	40	200	1.5 - 2	0.3	7.41	0.20	1.65
R55A025	36	203	1 - 1.5	0.3	7.51	0.33	2.25
1100/1020	30	203	1.5 - 2	0.35	7.51	0.55	2.23
R55A050	33	535	1 - 1.5	0.3	19.81	0.28	5.94
1100/1000		000	1.5 - 2	0.25	10.01	0.20	0.01
R55B000	38	375	1 - 1.5	0.25	13.89	0.25	3.47
NOODOOO		070	1.5 - 2	0.25	10.00	0.20	0.47
R55B050	34	442	1 - 1.5	0.3	16.36	0.33	4.91
11002000	Ŭ.		1.5 - 2	0.35	10.00	0.00	
R55B075	32	775	1 - 1.5	0.1525	28.72	0.18	4.38
			1.5 - 2	0.2			
R55C000	37	244	1 - 1.5	0.25	9.03	0.25	2.26
			1.5 - 2	0.25			-
R55C025	44	143	1 - 1.5	0.25	5.28	0.20	1.32
			1.5 - 2	0.15			
R55C050	35	282	1 - 1.5	0.3	10.44	0.33	3.13
	- 00		1.5 - 2	0.35		2.00	2.10
R55C075	31	275	1 - 1.5	0.25	10.18	0.28	2.55
			1.5 - 2	0.3			
Totals:		3,549			131.45		47.32
					Volume Weig	hted Average:	0.36

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.





Parcel 18-4-7



REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- TO 1-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-5	31	26	0 - 1	2.33	0.96	2.33	2.23
2-SB-16	30	86	0 - 1	2	3.19	2.00	6.37
2-SS-12	32	22	0 - 1	50	0.81	50.00	40.26
17-21-8-13	13	29	0 - 0.5	4.29 14.3	1.09	9.30	10.12
18-4-7-23	11	1	0 - 0.5	9.07	0.04	16.73	0.60
18-4-7-25	10	177	0.5 - 0.5	1.88	6.57	2.73	17.92
R54A100	27	746	0.5 - 0.5	0.25	27.63	0.25	6.91
R54B100	28	328	0 - 0.5	0.25	12.15	0.25	3.04
R54C100	29	373	0 - 0.5	0.25	13.82	0.25	3.45
R54D100	22	1,739	0 - 0.5	0.25	64.40	0.25	16.10
R93A125	23	140	0 - 0.5	0.1485 0.25	5.20	0.20	1.04
R93B125	24	293	0 - 0.5	27 76	10.85	51.50	558.64
R93C125	25	455	0.5 - 0.5	0.3	16.84	0.28	4.63
R93D125	26	1,106	0 - 0.5	0.25	40.96	0.25	10.24
Totals:		5,521			204.49		681.54
					Volume Weig	hted Average:	3.33

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

1- TO 2-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-16	30	73	1 - 2	0.219	2.71	0.22	0.59
18-4-5-7	33	16	1 - 1.5	6.26	0.61	3.52	2.14
			1.5 - 2	0.787			
18-4-5-8	31	32	1 - 1.5	0.148	1.20	0.20	0.24
			1.5 - 2	0.258			
18-4-7-6	11	1	1 - 1.5	109	0.03	117.50	3.28
			1.5 - 2	126			
18-4-7-15	32	12	1 - 1.5	11.4	0.44	7.66	3.36
			1.5 - 2	3.92			
18-4-7-17	10	24	1 - 1.5	30.8 69	0.90	49.90	44.96
			1.5 - 2	204			
18-4-7-23	9	1	1.5 - 2	354	0.04	279.00	10.01
			1 - 1.5	1.2			
18-4-7-25	8	182	1.5 - 2	0.961	6.73	1.08	7.27
			1 - 1.5	0.25			
R54A100	27	746	1.5 - 2	25.65	27.63	12.95	357.76
DE ID I OO			1 - 1.5	0.25	10.15		
R54B100	28	328	1.5 - 2	0.25	12.15	0.25	3.04
R54C100	29	373	1 - 1.5	0.25	13.82	0.25	3.45
K54C100	29	3/3	1.5 - 2	0.25	13.82	0.25	3.45
R54D100	22	1.739	1 - 1.5	0.25	64.40	0.25	16.10
11340100	22	1,700	1.5 - 2	0.25	04.40	0.25	10.10
R93A125	23	140	1 - 1.5	0.25	5.20	0.25	1.30
1100/1120	20		1.5 - 2	0.25	0.20	0.20	1100
R93B125	24	293	1 - 1.5	53	10.85	30.60	331.93
			1.5 - 2	8.2			
R93C125	25	455	1 - 1.5	0.25	16.84	0.25	4.21
		1	1.5 - 2	0.25			
R93D125	26	1,106	1 - 1.5	0.3	40.96	0.45	18.43
	1		1.5 - 2	0.6			
Totals:		5,521			204.48		808.07
					Volume Weig	nted Average:	3.95

2- TO 3-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
18-4-5-7	8	16	2 - 2.5	5.04	0.61	2.55	1.54
	Ů		2.5 - 3	0.05	0.01	2.00	
18-4-7-6	21	1	2 - 2.5	81.2	0.03	53.75	1.50
		·	2.5 - 3	26.3	0.00	00.70	1.00
18-4-7-15	6	35	2 - 2.5	7.69	1.30	6.97	9.08
10 4 7 10	Ů	00	2.5 - 3	6.24	1.00	0.01	0.00
18-4-7-17	20	24	2 - 2.5	29	0.90	47.20	42.52
10 4 7 17	20	2-4	2.5 - 3	65.4	0.00	11.20	42.02
18-4-7-21	15	8	2 - 2.5	8.17	0.29	6.76	1.97
10 4 7 2 1	10	Ü	2.5 - 3	5.34	0.20	6.70	1.57
18-4-7-22	7	9	2 - 2.5	700	0.33	353.40	115.52
10-4-7-22	,	, and the second	2.5 - 3	6.8	0.55	353.40	113.32
18-4-7-23	29	1	2 - 2.5	263	0.04	271.50	9.74
10-4-7-23	23	'	2.5 - 3	280	0.04	271.50	3.74
18-4-7-25	28	182	2 - 2.5	1.15	6.73	8.13	54.64
10-4-7-25	20	102	2.5 - 3	15.1] 0.73	0.13	54.04
2-SB-16	4	5,245	2 - 3	0.219	194.26	0.22	42.54
Totals:	-	5,521			204.48		279.06
					Volume Weig	hted Average:	1.36

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

SUMMARY - 1- TO 3-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		5,521			408.96		1,087.13
			•		Volume Weig	hted Average:	2.66

- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

SUMMARY - 0- TO 1-FOOT DEPTH INCREMENT (TABLE A-10)

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		5,521			204.49		681.54
			•	•	Volume Weig	hted Average:	3.33

SUMMARY - 1- TO 3-FOOT DEPTH INCREMENT (TABLE A-11)

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		5,521			408.96		1,087.13
					Volume Weig	hted Average:	2.66

3- TO 4-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-5	65	47	3 - 4	0.023	1.76	0.02	0.04
2-SB-7	51	334	3 - 4	3.7	12.39	3.70	45.83
2-SB-8	49	625	3 - 4	0.063	23.16	0.06	1.46
2-SB-9	47	414	3 - 4	0.074	15.34	0.07	1.14
2-SB-10	45	400	3 - 4	4.4	14.83	4.40	65.25
2-SB-11	44	417	3 - 4	0.078	15.43	0.08	1.20
2-SB-13	62	153	3 - 4	0.097	5.65	0.10	0.55
2-SB-16	64	93	3 - 4	0.027	3.46	0.03	0.09
18-4-1-2	59	215	3 - 3.5	1.79	7.98	1.45	11.53
10-4-1-2	33	210	3.5 - 4	1.1	7.30	1.79	11.55
18-4-1-7	60	189	3 - 3.5	15.8	6.98	13.70	95.69
10-4-1-7	00	109	3.5 - 4	11.6	0.30	13.70	93.09
18-4-2,3,4-1	52	144	3 - 3.5	12.4	5.33	7.12	37.95
10-4-2,3,4-1	32	144	3.5 - 4	1.84	5.55	7.12	37.93
18-4-2,3,4-10	61	136	3 - 3.5	14.605	5.03	21.55	108.43
10-4-2,3,4-10	01	130	3.5 - 4	28.5	5.03	21.55	100.43
18-4-2,3,4-20	54	171	3 - 3.5	20.9	6.35	12.89	81.78
10-4-2,3,4-20	54	171	3.5 - 4	4.87	0.55	12.09	01.70
18-4-7-1	58	198	3 - 3.5	32.3	7.32	73.15	535.11
10-4-7-1	50	190	3.5 - 4	114	1.32	73.15	555.11
18-4-7-2	46	397	3 - 3.5	12.8	14.70	42.15	619.70
10-4-7-2	40	397	3.5 - 4	71.5	14.70	42.15	619.70
18-4-7-3	48	333	3 - 3.5	117	12.34	78.80	972.57
10-4-7-3	40	333	3.5 - 4	41	12.34	70.00	972.57
18-4-7-4	63	220	3 - 3.5	16.5	8.13	40.05	405.41
10-4-7-4	03	220	3.5 - 4	83.2	0.13	49.85	405.41
18-4-7-5	50	274	3 - 3.5	4.5	10.13	23.50	238.14
18-4-7-5	50	2/4	3.5 - 4	42.5	10.13	23.50	230.14
18-4-7-6	22	12	3 - 3.5	27.3	0.45	21.00	9.46
18-4-7-6	22	12	3.5 - 4	14.7	0.45	21.00	9.46
18-4-7-18	57	80	3 - 3.5	38.9	2.97	25.35	75.19
18-4-7-18	5/	80	3.5 - 4	11.8	2.97	25.35	75.19
19.4.7.10	EG	111	3 - 3.5	13.2	4.12	7.26	20.00
18-4-7-19	56	111	3.5 - 4	1.32	4.12	7.26	29.90
10.4.7.00		400	3 - 3.5	108	7.11	00.70	500.40
18-4-7-20	55	192	3.5 - 4	57.4	7.11	82.70	588.16
18-4-7-21	50	365	3 - 3.5	1.99	13.53	4.29	57.96
18-4-7-21	53	300	3.5 - 4	6.58	13.53	4.29	57.90
Totals:		5,521			204.48		3,982.52
	•	•	•	•	Volume Weig	hted Average:	19.48

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

4- TO 5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume	
2-SB-5	65	47	4 - 5	0.023	1.76	0.02	0.04	
2-SB-7	52	334	4 - 5	3.7	12.39	3.70	45.83	
2-SB-8	51	625	4 - 5	0.063	23.16	0.06	1.46	
2-SB-9	50	414	4 - 5	0.074	15.34	0.07	1.14	
2-SB-10	49	400	4 - 5	4.4	14.83	4.40	65.25	
2-SB-11	54	417	4 - 5	0.078	15.43	0.08	1.20	
2-SB-13	62	153	4 - 5	0.097	5.65	0.10	0.55	
2-SB-15	53	177	4 - 5	0.032	6.56	0.03	0.21	
2-SB-16	64	99	4 - 5	0.027	3.68	0.03	0.10	
18-4-1-2	60	215	4 - 4.5	3.75	7.98	2.23	17.78	
10-4-1-2	00	215	4.5 - 5	0.708	7.50	2.23	17.78	
18-4-1-7	58A	189	4 - 4.5	2.4	6.98	5.08	35.45	
10-4-1-7	30A	109	4.5 - 5	7.75	0.90	5.06		
10 4 2 2 4 4	18-4-2,3,4-1 44	44	144	4 - 4.5	3.12	5.33	1.97	10.52
10-4-2,3,4-1	44	144	4.5 - 5	0.829	5.55	1.97	10.52	
18-4-2,3,4-10	61	136	4 - 4.5	1.19	5.03	3.05	15.34	
10-4-2,3,4-10	61	136	4.5 - 5	4.91	5.03	3.05	15.54	
I8-4-7-1 58	50	400	4 - 4.5	19.1	7.32	10.70	00.00	
	198	4.5 - 5	6.3	7.32	12.70	92.90		
10.4.7.0		397	4 - 4.5	12.2	14.70	0.70	00.05	
18-4-7-2	45		4.5 - 5	1.26		6.73	98.95	
18-4-7-3	47	7 222	4 - 4.5	43.1	12.34	40.00	040.40	
18-4-7-3	47	333	4.5 - 5	56	12.34	49.60	612.18	
18-4-7-4	63	208	4 - 4.5	11.5	7.71	6.99	53.83	
18-4-7-4	63	208	4.5 - 5	2.47	7.71	6.99	53.83	
18-4-7-5	48	274	4 - 4.5	19.2	10.13	22.50	228.01	
18-4-7-5	48	2/4	4.5 - 5	25.8	10.13	22.50	228.01	
18-4-7-6	59	12	4 - 4.5	1.96	0.45	2.08	0.93	
18-4-7-6	59	12	4.5 - 5	2.19	0.45	2.08	0.93	
10 4 7 40	57	00	4 - 4.5	0.431	0.07	0.55	4.00	
18-4-7-18	57	80	4.5 - 5	0.67	2.97	0.55	1.63	
10.47.40	50	444	4 - 4.5	0.207	4.40	0.00	4.40	
18-4-7-19	56	111	4.5 - 5	0.354	4.12	0.28	1.16	
10.47.00		400	4 - 4.5	0.392	7.10	0.50	0.57	
18-4-7-20	55	192	4.5 - 5	0.611	7.12	0.50	3.57	
10.1.0.1	005	4 - 4.5	1.3	40.50	50.45	740.00		
18-4-7-21	46	365	4.5 - 5	105	13.53	53.15	718.92	
Totals:		5,521			204.49		2,006.94	
	•				Volume Weigl	nted Average:	9.81	

5- TO 6-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	43	334	5 - 6	3.7	12.39	3.70	45.83
2-SB-8	42	674	5 - 6	0.063	24.96	0.06	1.57
2-SB-9	41	489	5 - 6	0.074	18.11	0.07	1.34
2-SB-10	40	400	5 - 6	4.4	14.83	4.40	65.25
2-SB-11	45	417	5 - 6	0.078	15.43	0.08	1.20
2-SB-13	52	155	5 - 6	0.0275	5.73	0.03	0.16
2-SB-14	51	270	5 - 6	0.027	9.99	0.03	0.27
2-SB-15	44	324	5 - 6	0.032	11.99	0.03	0.38
18-4-7-1	49	198	5 - 5.5	23.7	7.32	16.50	120.70
10-4-7-1	49	190	5.5 - 6	9.3	7.32	10.50	120.70
18-4-7-2	36	397	5 - 5.5	165	14.70	122.60	1,802.50
10-4-7-2	10-4-7-2	397	5.5 - 6	80.2		122.00	1,002.50
18_1-7-3	38	468	5 - 5.5	6.79	17.33	33.40	578.85
10-4-7-3	18-4-7-3 38	+00	5.5 - 6	60	17.33		57 5.65

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

5- TO 6-FOOT DEPTH INCREMENT CONTINUED

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
18-4-7-4	53	261	5 - 5.5	13.5	9.68	8.36	80.89
10-4-7-4	33	201	5.5 - 6	3.22	9.00	0.30	00.03
18-4-7-5	39	278	5 - 5.5	60.8	10.30	36.35	374.45
10-4-7-0	39	270	5.5 - 6	11.9	10.50	30.33	3/4.45
18-4-7-6	50	12	5 - 5.5	1.06	0.45	0.62	0.28
10-4-7-0	30		5.5 - 6	0.182			
18-4-7-18	48	80	5 - 5.5	0.67	2.97	0.64	1.90
10-4-7-10	40		5.5 - 6	0.6095		0.04	
18-4-7-19	47	116	5 - 5.5	0.354	4.31	0.20	0.87
10-4-7-19	47	110	5.5 - 6	0.05	4.31		0.67
18-4-7-20	46	192	5 - 5.5	0.611	7.12	0.33	2.35
10-4-7-20	40	192	5.5 - 6	0.05	7.12	0.33	2.35
18-4-7-21	37	AEG	5 - 5.5	105	16.89	65.00	1 007 01
10-4-7-21	37	456	5.5 - 6	25	10.89	65.00	1,097.91
Totals:		5,521			204.49		4,176.70
					Volume Weig	hted Average:	20.42

6- TO 6.5-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	24	672	6 - 6.5	0.0195	12.45	0.02	0.24
2-SB-8	23	1,063	6 - 6.5	0.02	19.69	0.02	0.39
2-SB-9	22	981	6 - 6.5	0.01975	18.17	0.02	0.36
2-SB-10	21	718	6 - 6.5	0.0195	13.29	0.02	0.26
2-SB-11	26	488	6 - 6.5	0.0185	9.03	0.02	0.17
2-SB-13	29	173	6 - 6.5	0.0275	3.20	0.03	0.09
2-SB-14	28	355	6 - 6.5	0.027	6.57	0.03	0.18
2-SB-15	25	409	6 - 6.5	0.053	7.57	0.05	0.40
18-4-7-17	27	31	6 - 6.5	0.164	0.57	0.16	0.09
18-4-7-21	20	632	6 - 6.5	61.1	11.71	61.10	715.26
Totals:		5,521			102.24		717.44
					Volume Weig	hted Average:	7.02

6.5- TO 7-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	22	672	6.5 - 7	0.0195	12.45	0.02	0.24
2-SB-8	21	1,063	6.5 - 7	0.02	19.69	0.02	0.39
2-SB-9	20	981	6.5 - 7	0.01975	18.17	0.02	0.36
2-SB-10	19	722	6.5 - 7	0.0195	13.37	0.02	0.26
2-SB-11	24	514	6.5 - 7	0.0185	9.52	0.02	0.18
2-SB-13	26	173	6.5 - 7	0.0275	3.20	0.03	0.09
2-SB-14	25	355	6.5 - 7	0.027	6.57	0.03	0.18
2-SB-15	23	409	6.5 - 7	0.053	7.57	0.05	0.40
18-4-7-21	18	632	6.5 - 7	22.9	11.71	22.90	268.08
Totals:		5,521			102.24		270.18
					Volume Weig	hted Average:	2.64

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

7- TO 8-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	20	820	7 - 8	0.0195	30.36	0.02	0.59
2-SB-8	19	1,063	7 - 8	0.02	39.37	0.02	0.79
2-SB-9	18	981	7 - 8	0.01975	36.34	0.02	0.72
2-SB-10	17	722	7 - 8	0.0195	26.74	0.02	0.52
2-SB-11	22	514	7 - 8	0.0185	19.05	0.02	0.35
2-SB-14	23	365	7 - 8	0.039	13.51	0.04	0.53
2-SB-15	21	409	7 - 8	0.053	15.14	0.05	0.80
18-4-7-21	16	647	7 - 7.5	7.64	23.97	2.00	93.49
18-4-7-21	16	647	7.5 - 8	0.16	23.97	3.90	
Totals:		5,521			204.48		97.79
	•	•	•		Volume Weig	hted Average:	0.48

8- TO 9-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	18	820	8 - 9	0.0195	30.36	0.02	0.59
2-SB-8	17	1,063	8 - 9	0.02	39.37	0.02	0.79
2-SB-9	16	981	8 - 9	0.01975	36.34	0.02	0.72
2-SB-10	15	722	8 - 9	0.0195	26.74	0.02	0.52
2-SB-11	19	514	8 - 9	0.0185	19.05	0.02	0.35
2-SB-14	20	365	8 - 9	0.039	13.51	0.04	0.53
18-4-7-21	14	1,056	8 - 8.5	0.349	39.12	0.31	11.97
10-4-7-21	14	1,056	8.5 - 9	0.263	33.12	0.31	11.97
Totals:	-	5,521			204.49	-	15.47
				·	Volume Weig	hted Average:	0.08

9- TO 10-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-7	13	2,139	9 - 10	0.0195	79.22	0.02	1.54
2-SB-8	12	1,165	9 - 10	0.02	43.13	0.02	0.86
2-SB-9	11	981	9 - 10	0.01975	36.34	0.02	0.72
2-SB-10	10	722	9 - 10	0.0195	26.74	0.02	0.52
2-SB-11	14	514	9 - 10	0.0185	19.05	0.02	0.35
Totals:		5,521			204.49		4.00
					Volume Weig	hted Average:	0.02

10- TO 12-FOOT DEPTH INCREMENT

Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-8	7	3,304	10 - 12	0.0185	244.72	0.02	4.53
2-SB-9	6	1,395	10 - 12	0.019	103.35	0.02	1.96
2-SB-11	8	822	10 - 12	0.0185	60.91	0.02	1.13
Totals:	-	5,521		-	408.98	-	7.62
					Volume Weig	hted Average:	0.02

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES ADJACENT TO THE 1-1/2 MILE REACH OF HOUSATONIC RIVER

GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

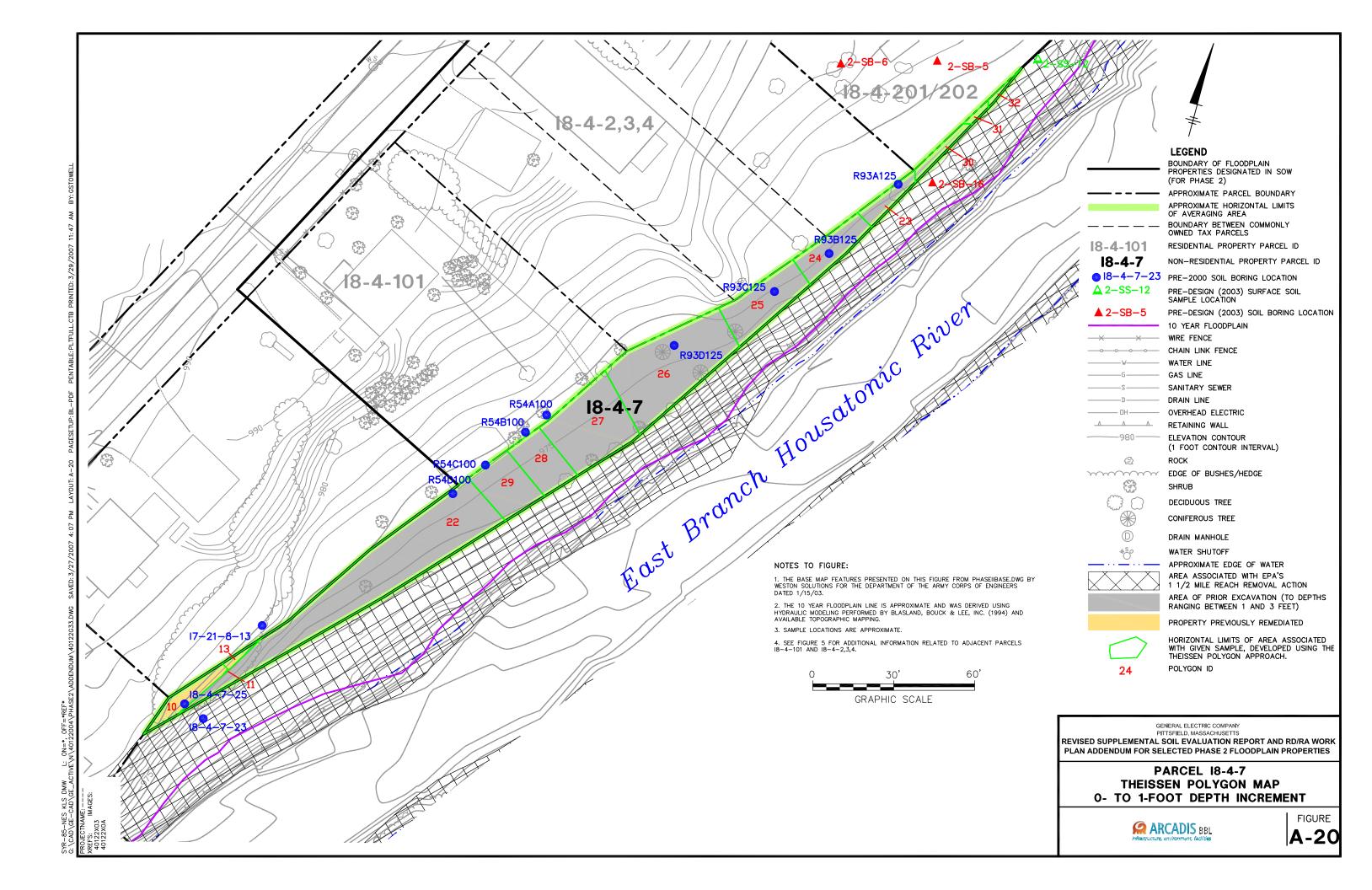
12- TO 15-FOOT DEPTH INCREMENT

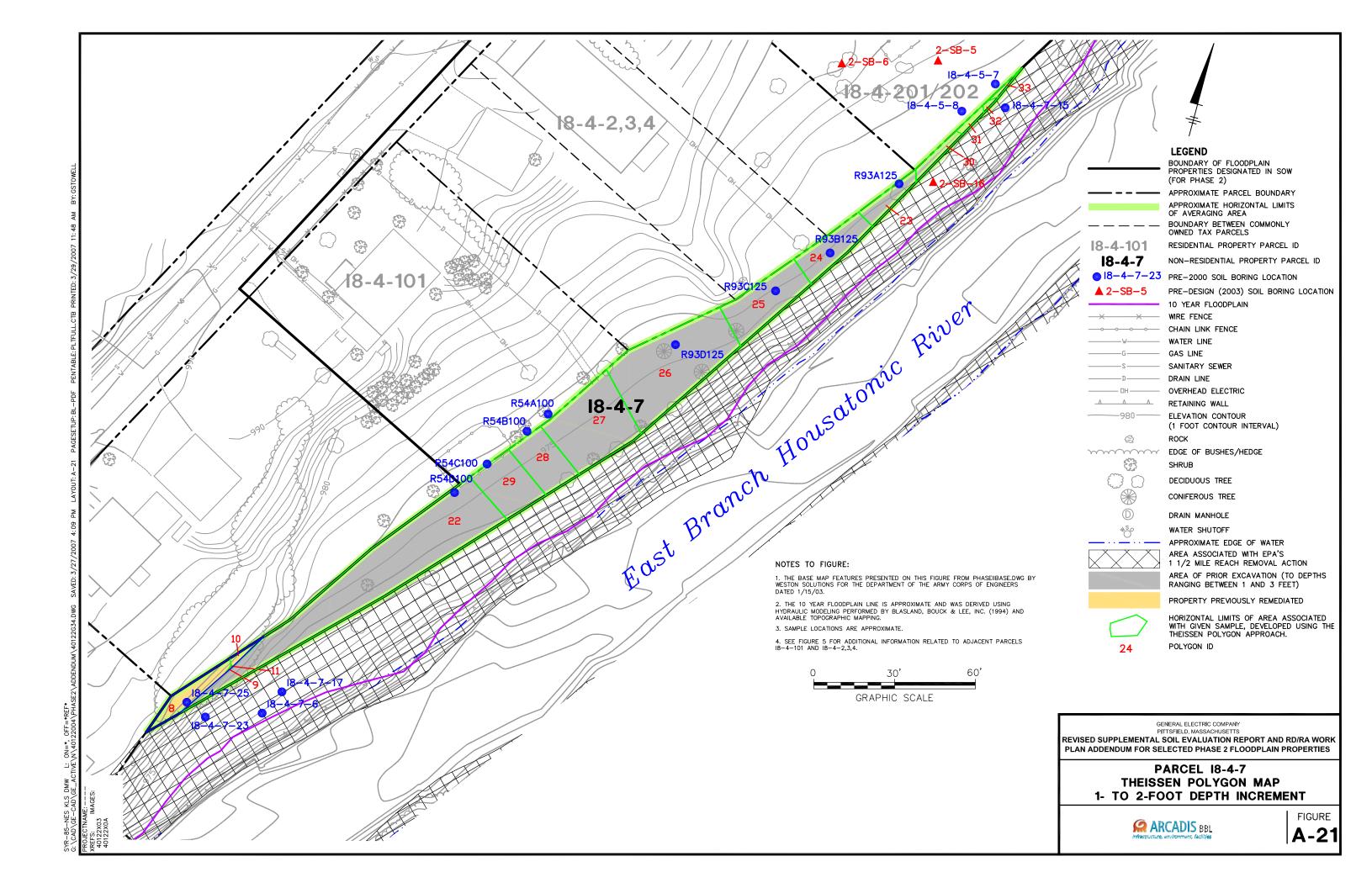
Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
2-SB-8	5	3,304	12 - 15	0.0185	367.07	0.02	6.79
2-SB-9	4	2,218	12 - 15	0.019	246.39	0.02	4.68
Totals:		5,521			613.47	-	11.47
					Volume Weig	hted Average:	0.02

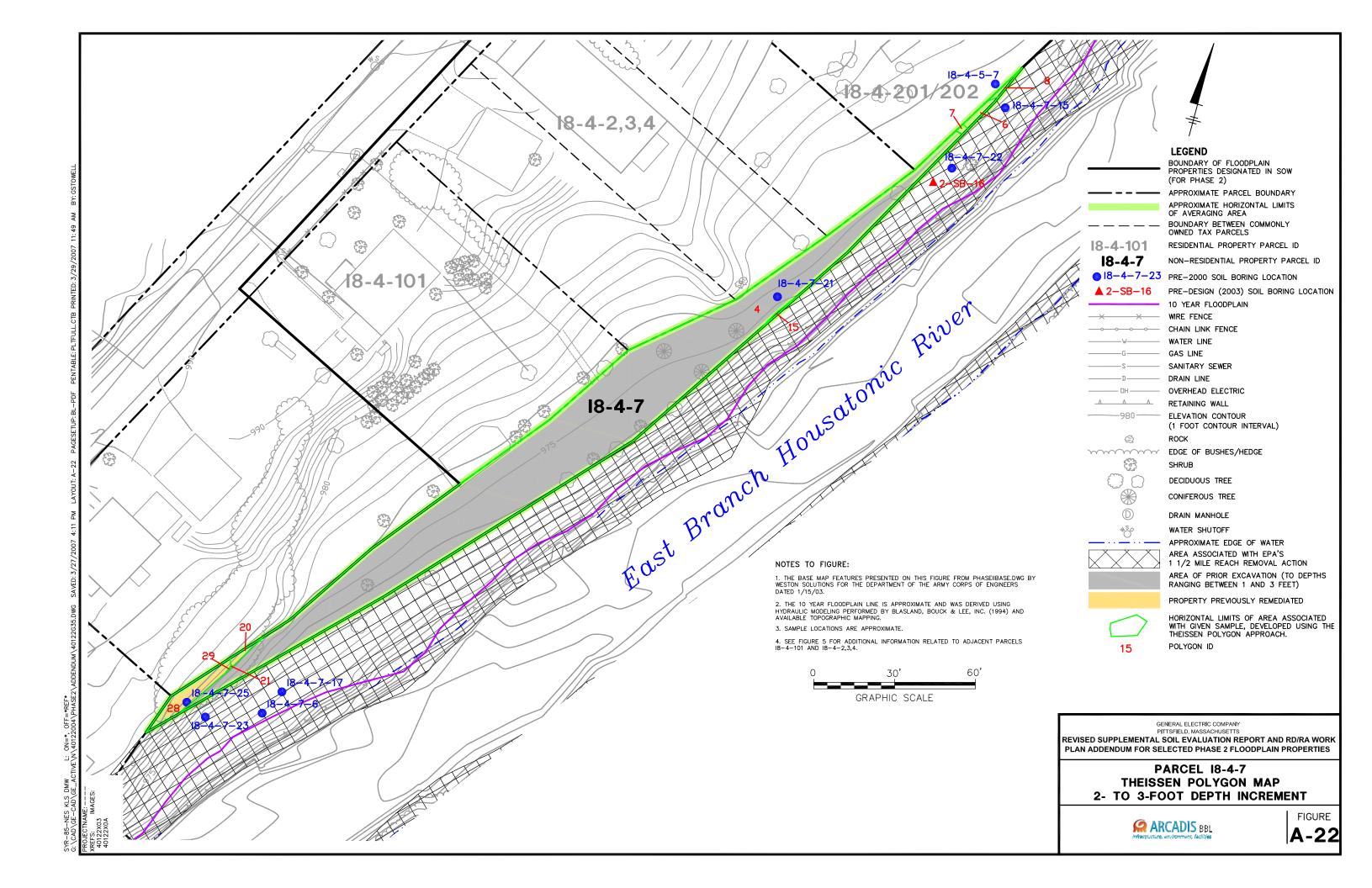
SUMMARY - 0- TO 15-FOOT DEPTH INCREMENT

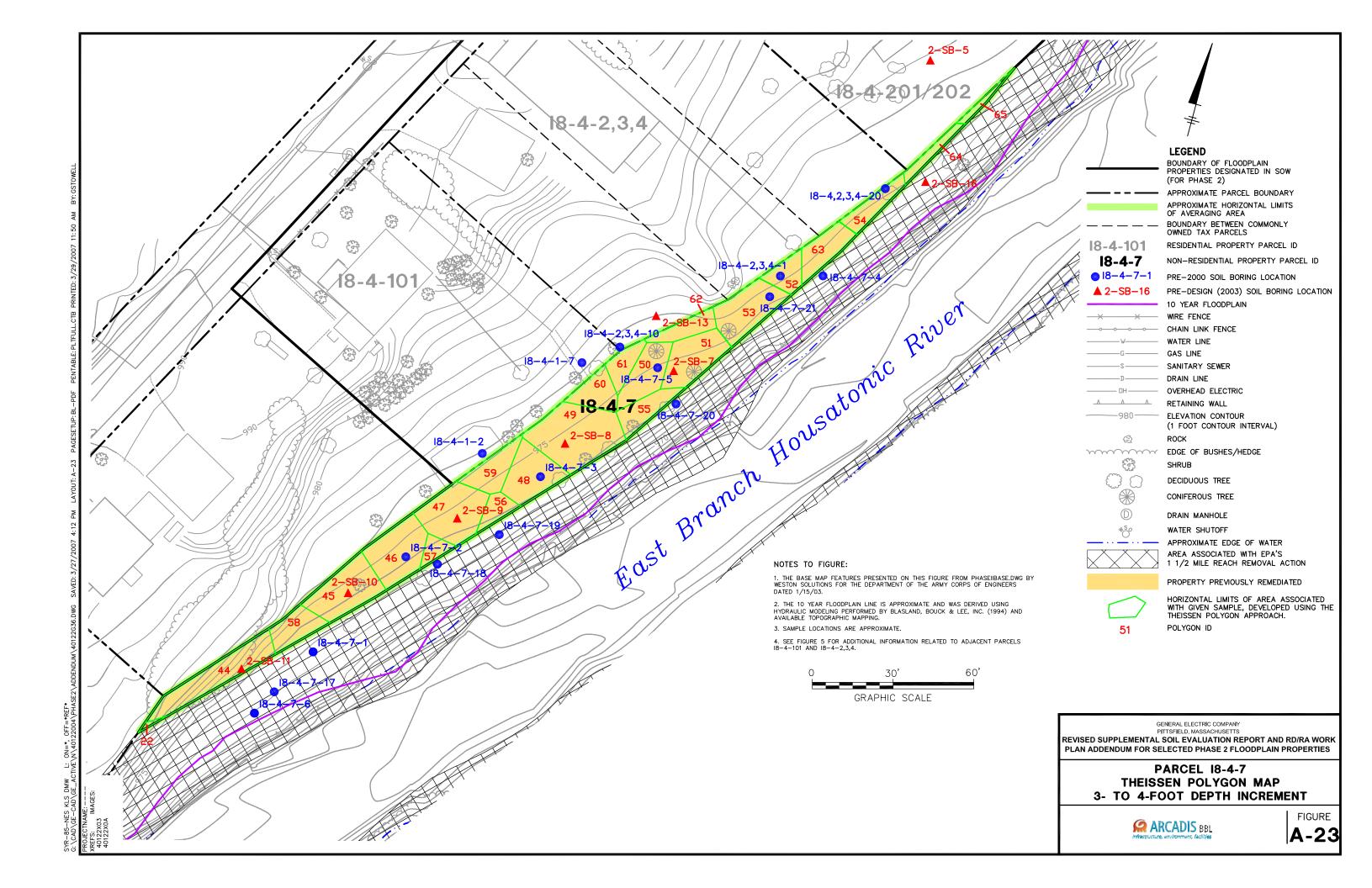
Sample ID(s)	Polygon ID	Polygon Area (sq. ft.)	Sample Depth (ft.)	PCB Conc. (ppm)	Volume (cumulative) (cy)	Average PCB Concentration Per Foot	Average PCB Conc. TIMES Total Volume
Totals:		5,521			3,067.31	-	13,058.80
					Volume Weig	hted Average:	4.26

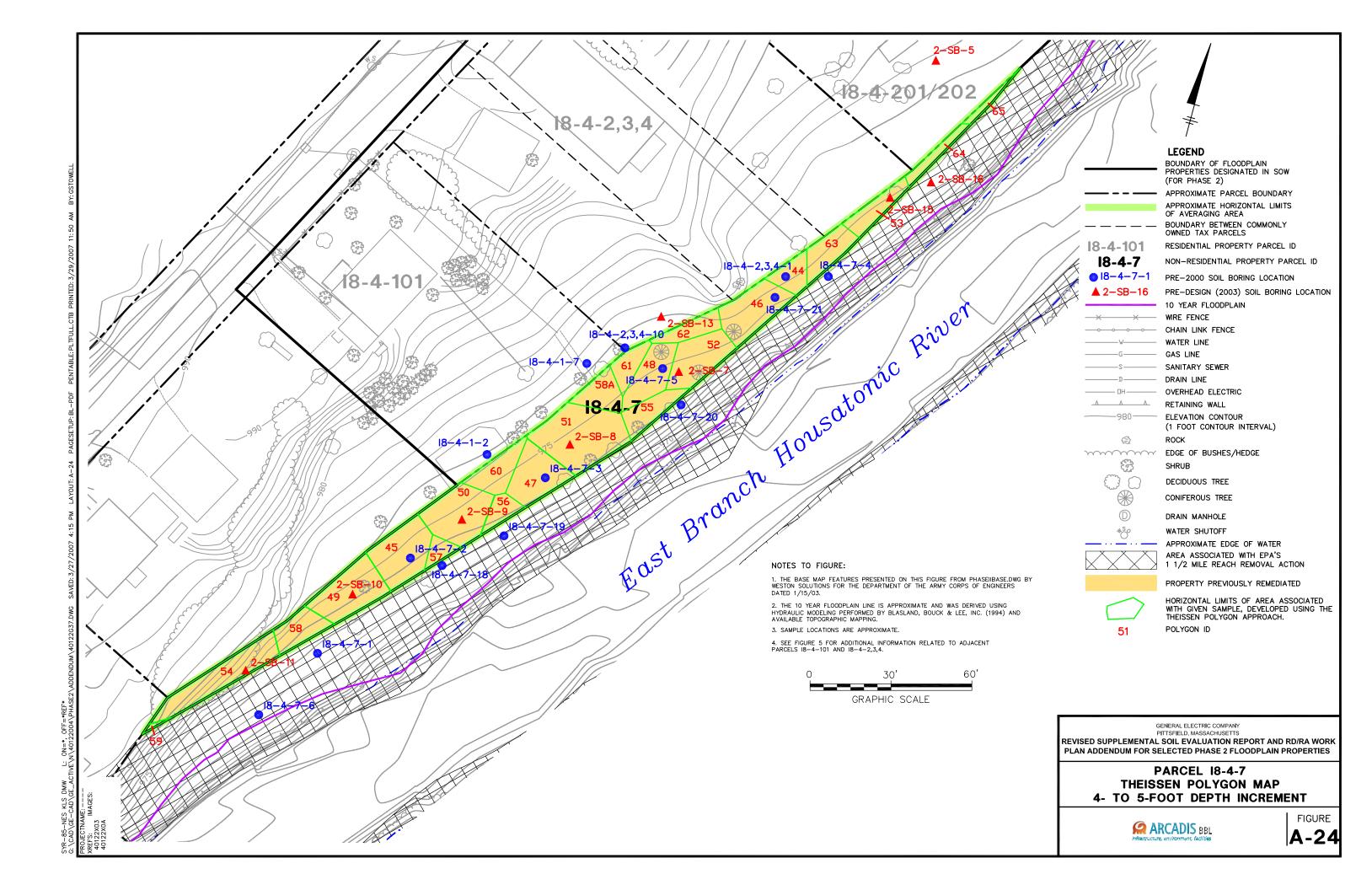
- 1. Non-detectable PCBs included as one-half the detection limit in calculations and shown in bold.
- 2. For instances where a duplicate sample was available, the average of the samples was included in table.
- 3. All calculations and rounding are performed by the computer software. Therefore, certain quantities in above table are displayed as rounded numbers for table clarity.

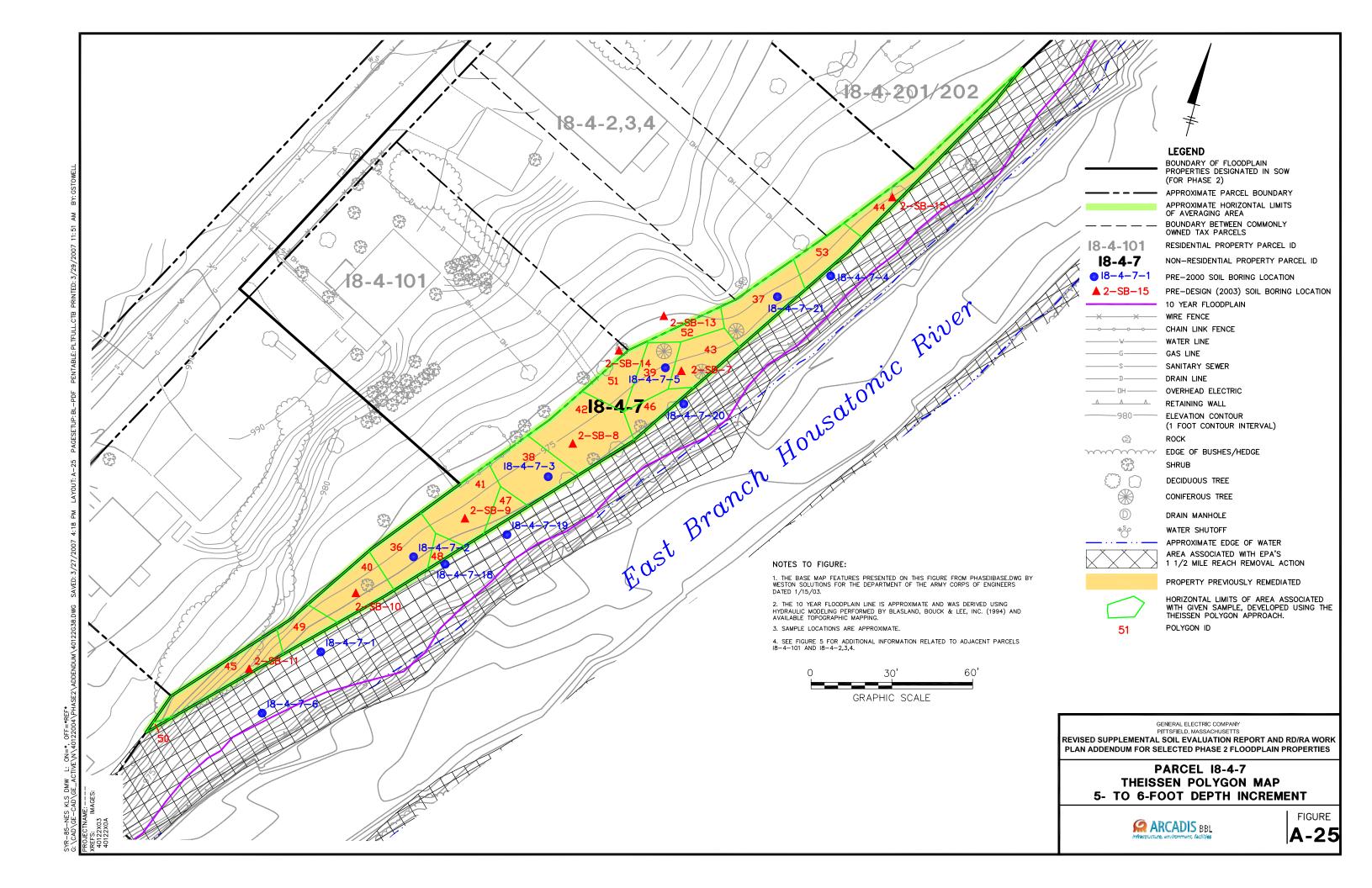


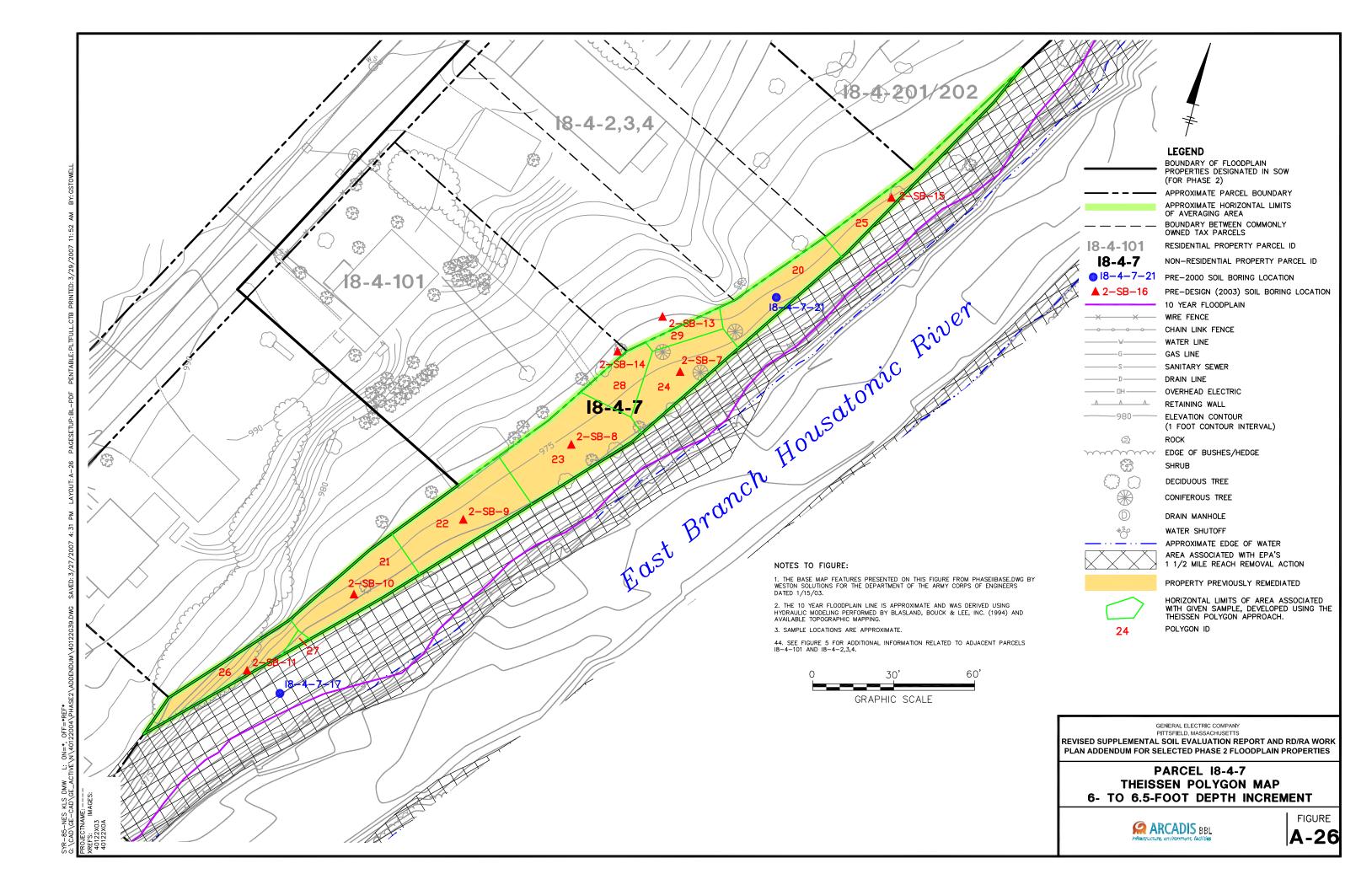


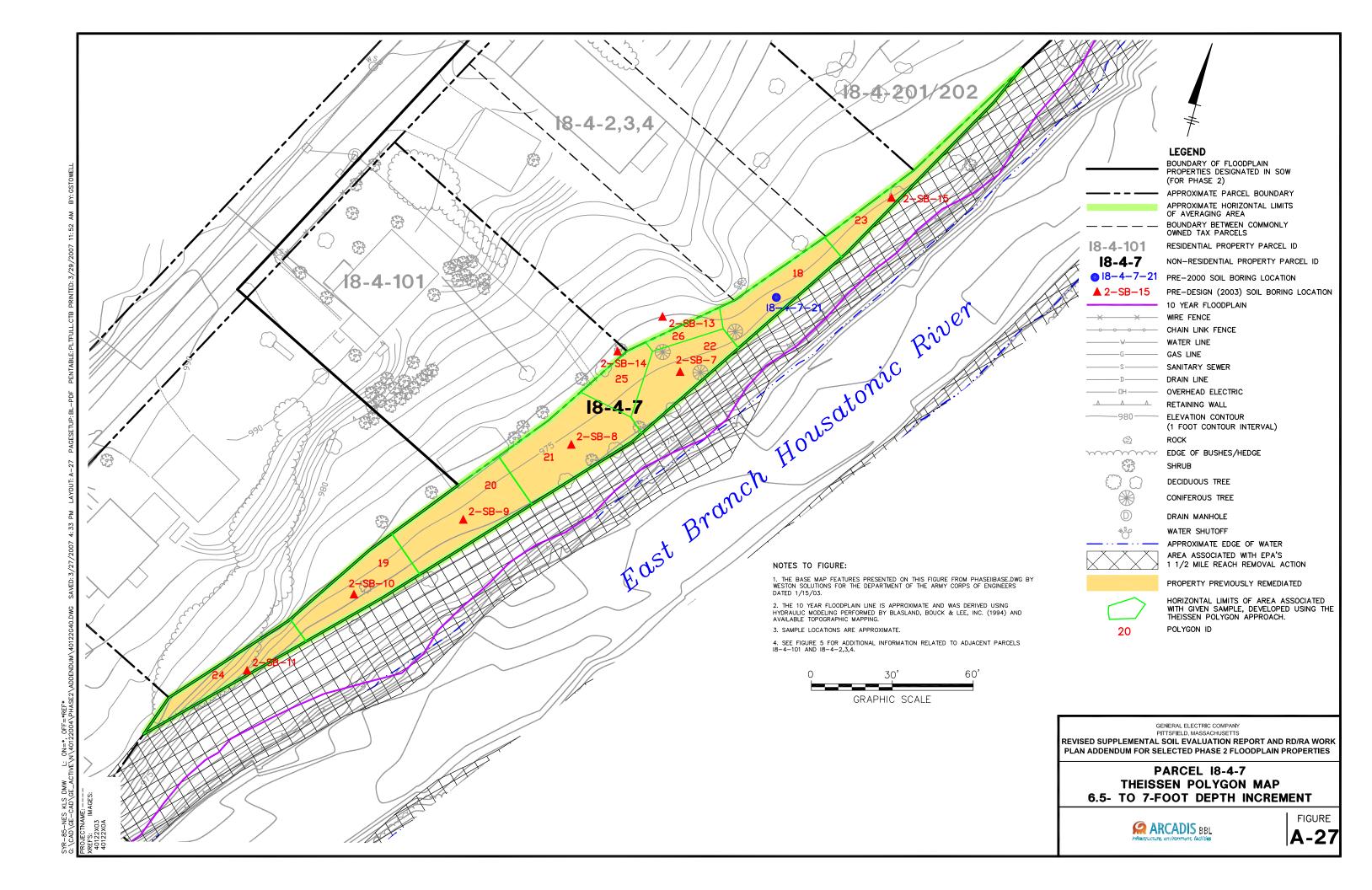


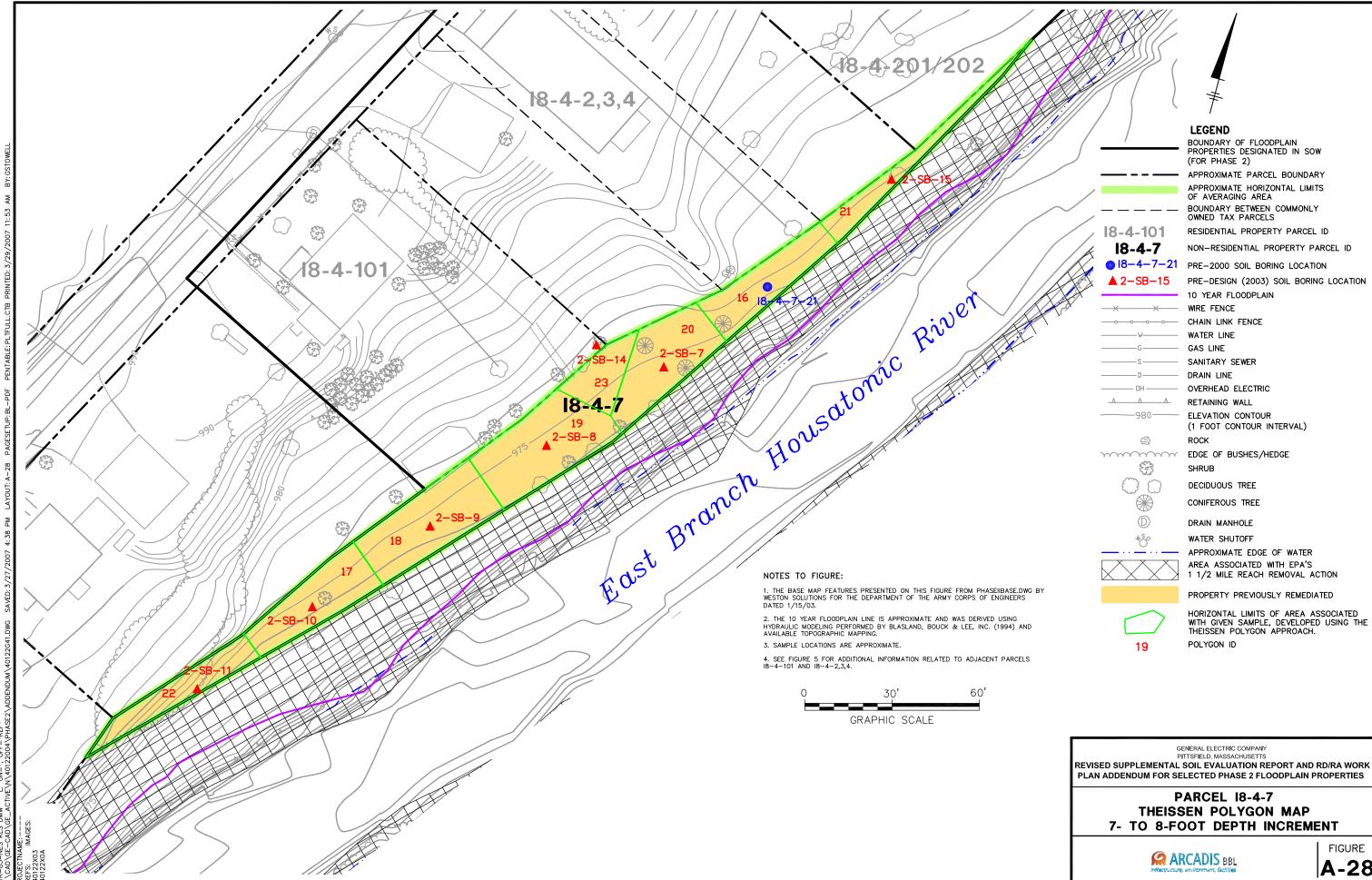


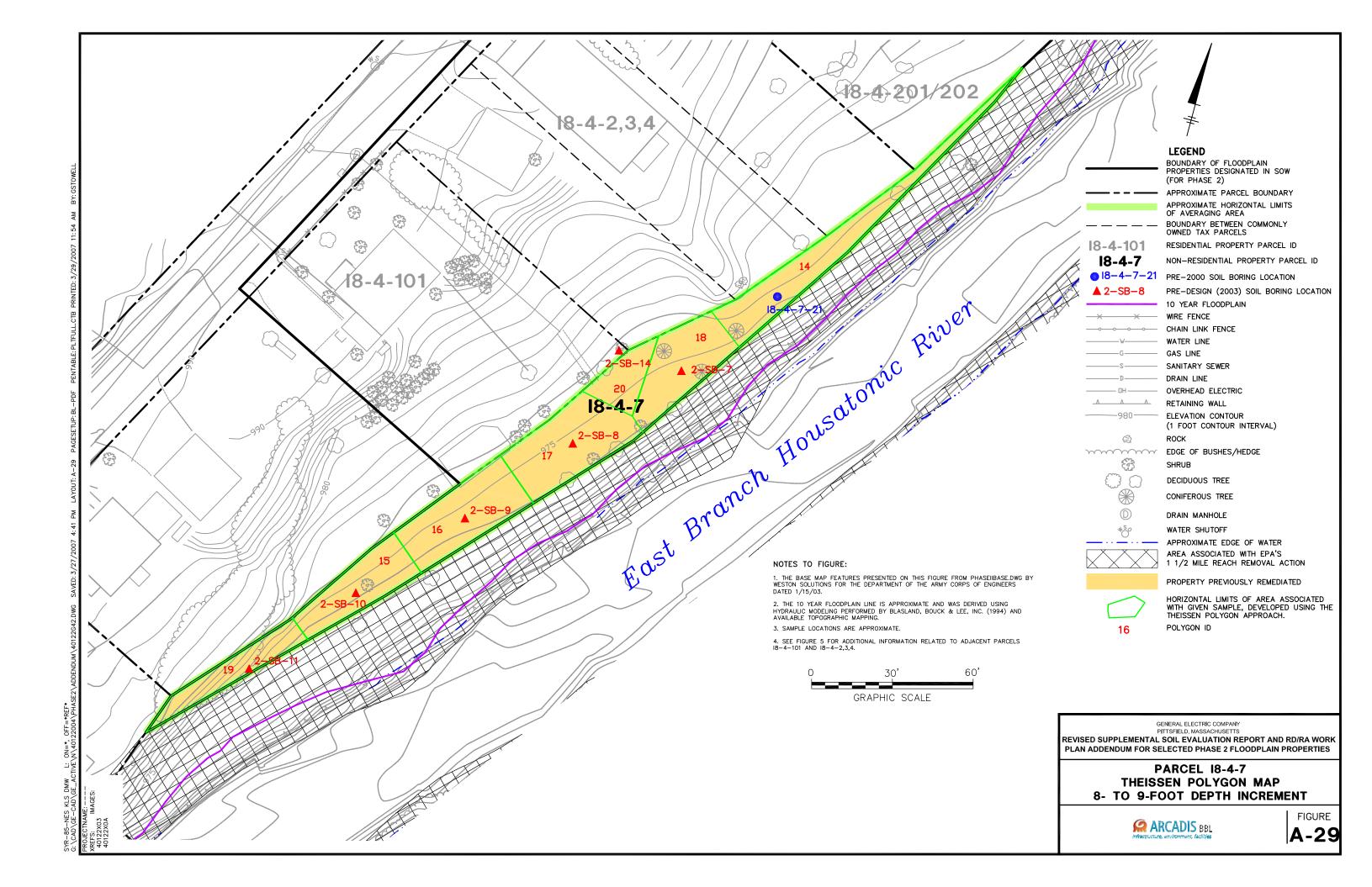


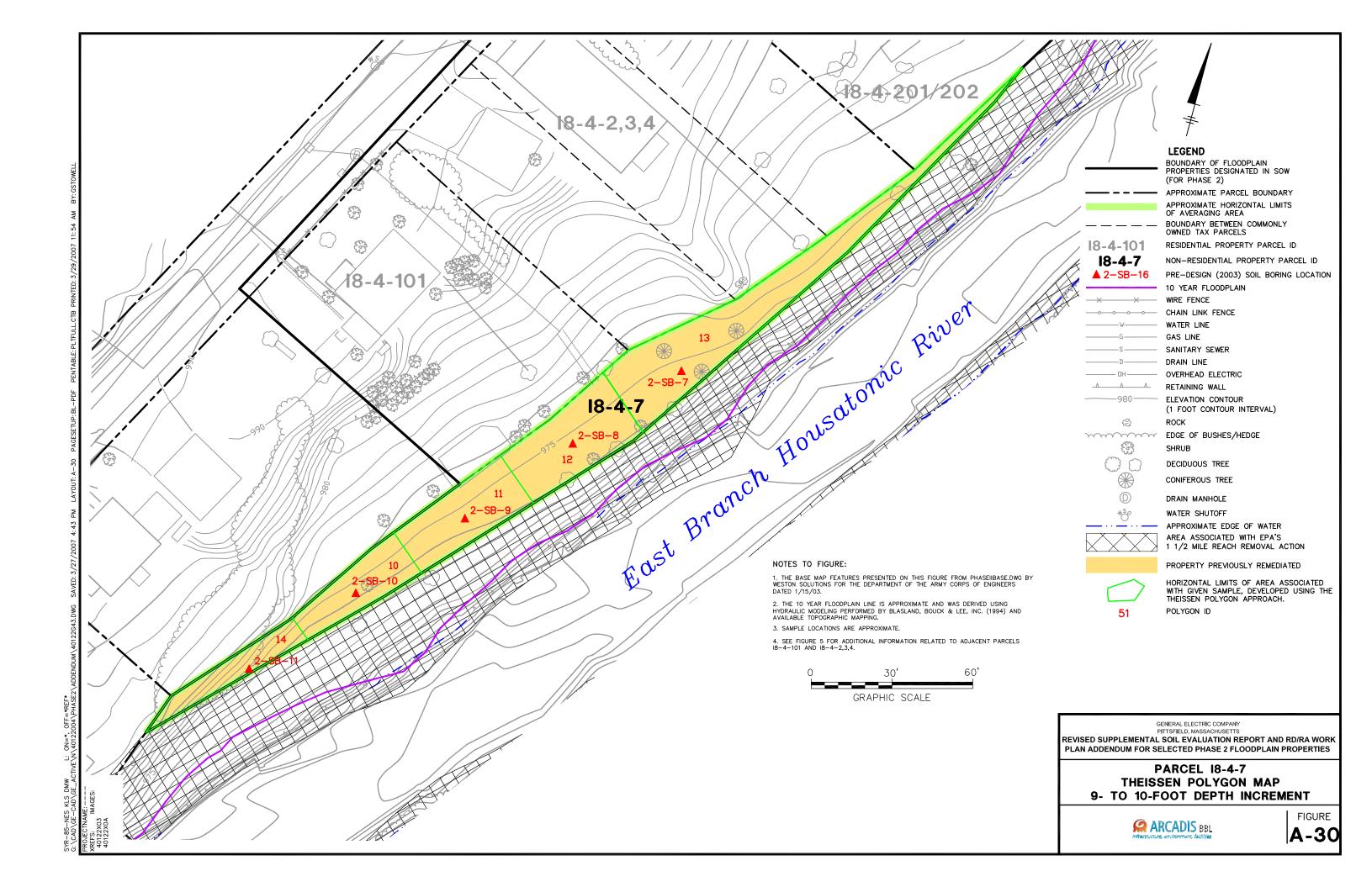


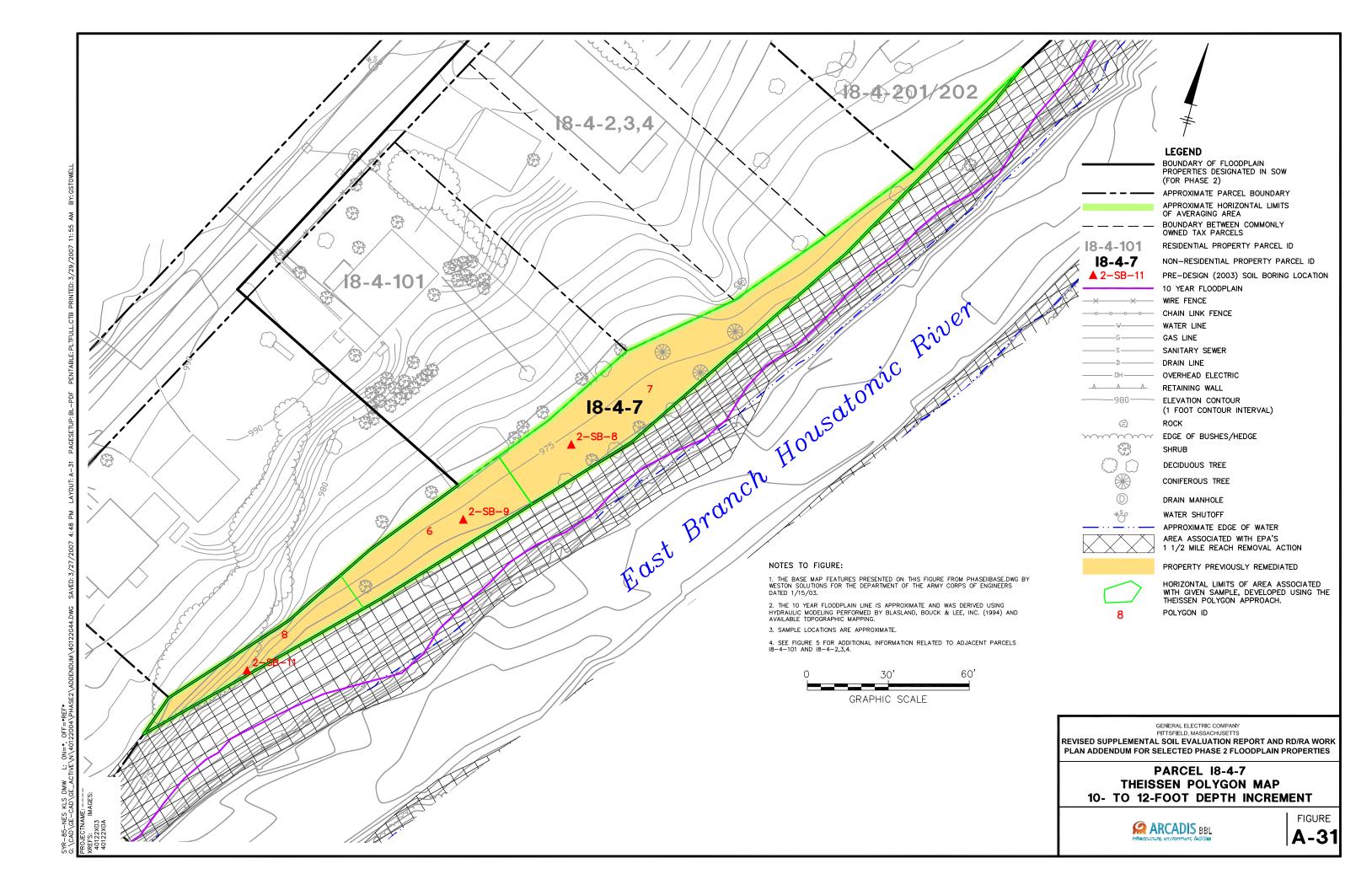


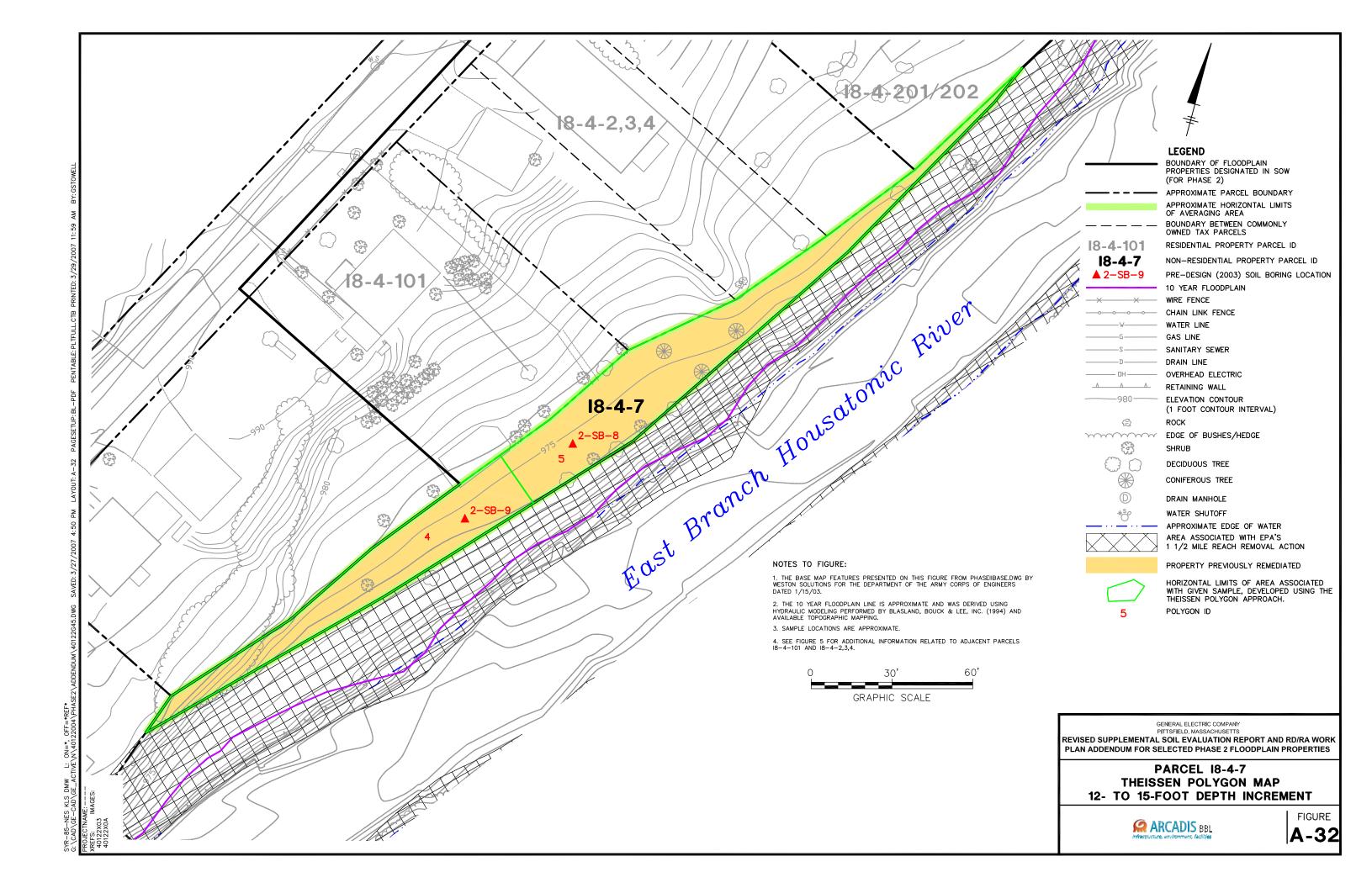












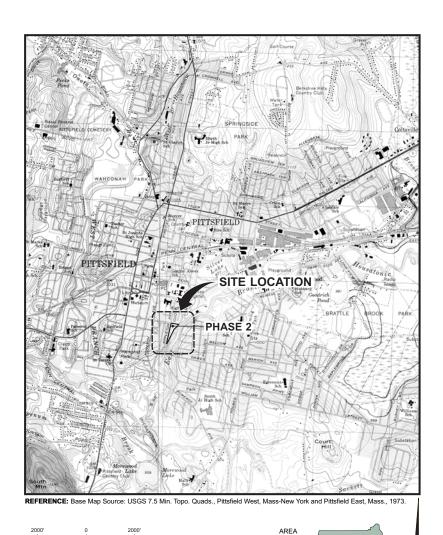
Appendix B

Technical Drawings



TECHNICAL DRAWINGS

PHASE 2 FLOODPLAIN PROPERTIES REMOVAL ACTION AREA (RAA)



LOCATION MAP

MARCH 2007

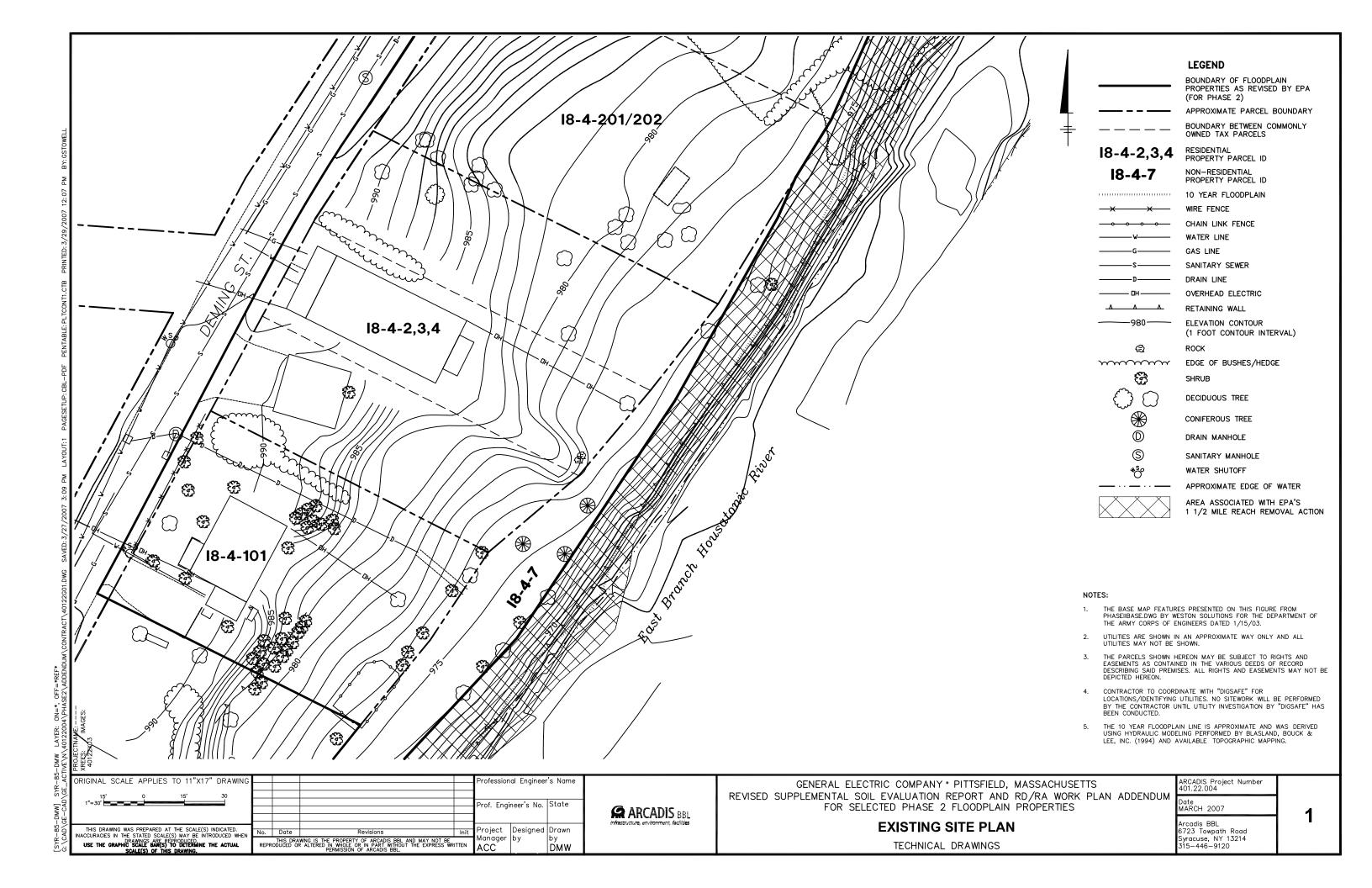


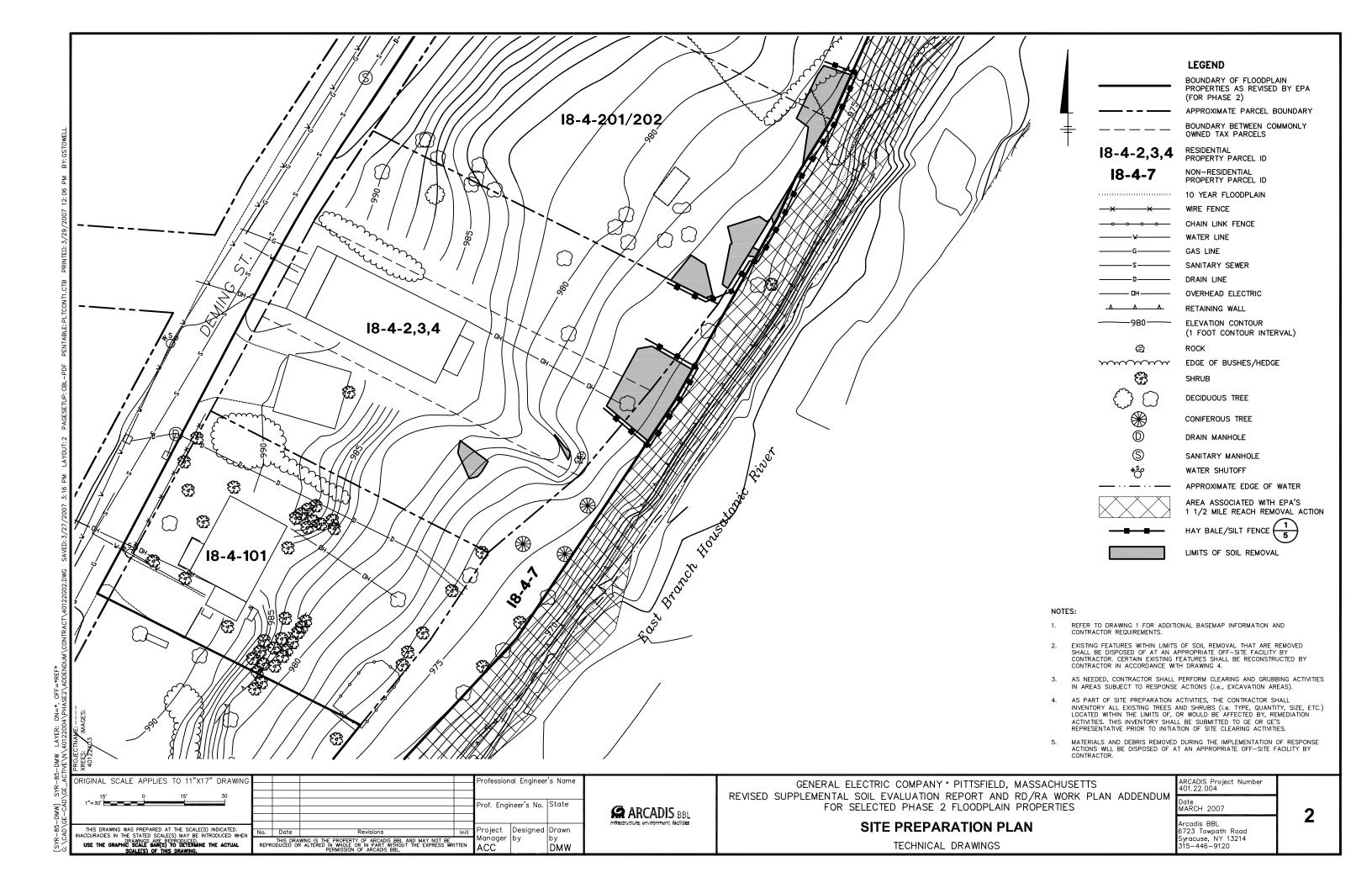


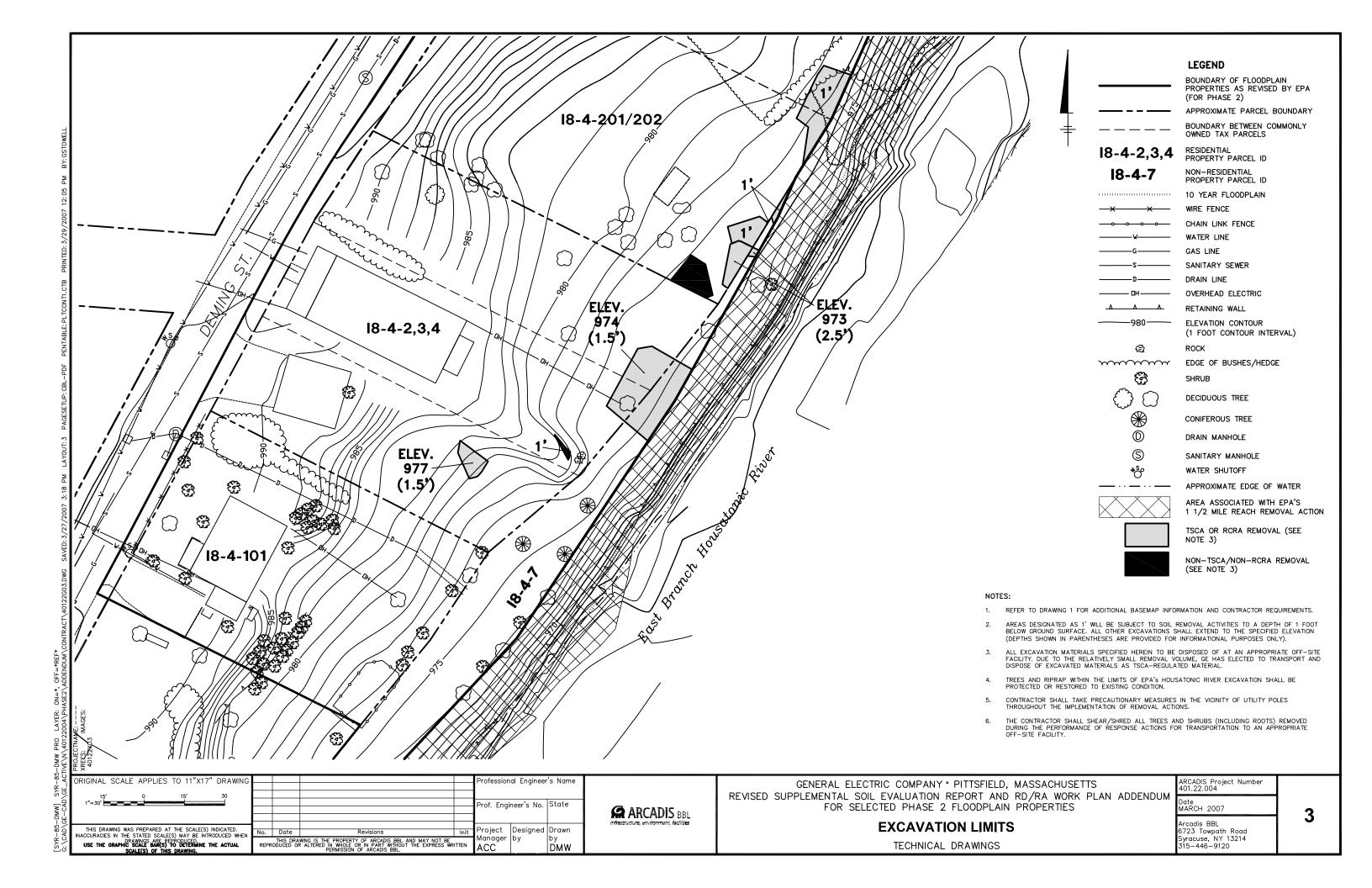
INDEX TO DRAWINGS

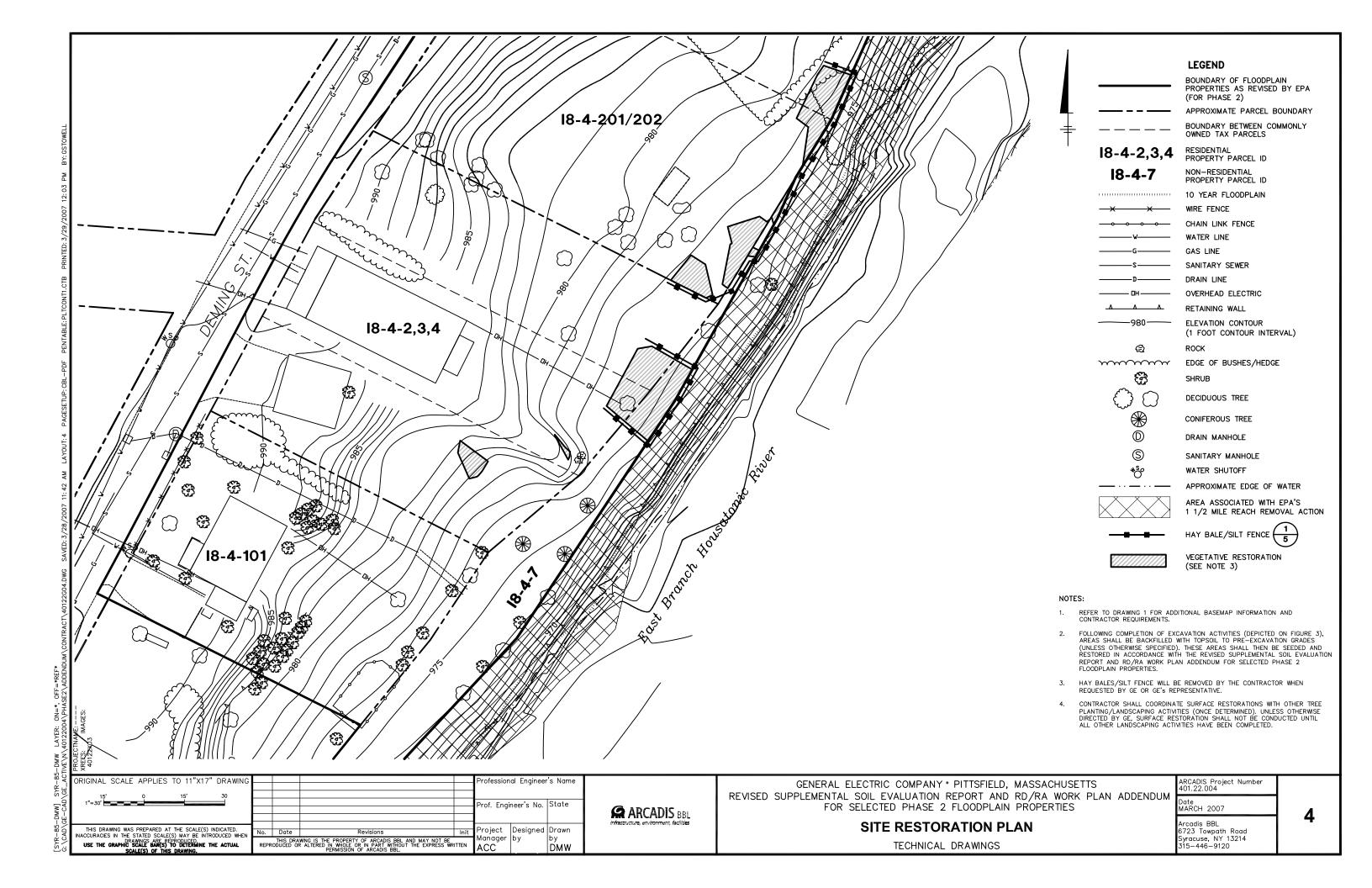
COVER SHEET

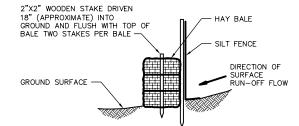
- 1. EXISTING SITE PLAN
- 2. SITE PREPARATION PLAN
- 3. EXCAVATION LIMITS
- 4. SITE RESTORATION PLAN
- 5. GENERAL NOTES AND DETAILS

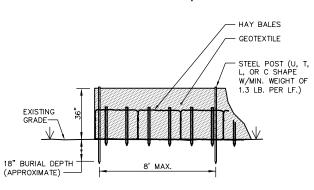












NOTES:

- 1. UNTIL SUCH TIME THAT ALL EXCAVATION ACTIVITIES HAVE BEEN COMPLETED AND BACKFILL MATERIAL HAS BEEN PLACED IN ALL AREAS, SILT ACCUMULATIONS ADJACENT TO EROSION CONTROL MEASURES SHALL BE IMMEDIATELY REMOVED AND DISPOSED WITH SOILS SUBJECT TO TRANSPORT AND DISPOSAL
- 2. THE CONTRACTOR SHALL INSPECT INSTALLATION AND REMOVE SILT AND
- 3. HAY BALES/SILT FENCE WILL BE REMOVED BY THE CONTRACTOR WHEN REQUESTED BY GE OR GE'S REPRESENTATIVE. CONTRACTOR SHALL
- 4. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE HAY BALES/SILT FENCING UNTIL RESTORATION ACTIVITIES ARE COMPLETE.



GENERAL NOTES - DRAWINGS 1 THROUGH 4

- THE SOILS SUBJECT TO EXCAVATION AND HANDLING CONTAIN PCBs AND OTHER HAZARDOUS CONSTITUENTS AND SHOULD BE HANDLED IN ACCORDANCE WITH APPLICABLE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING AND IMPLEMENTING APPROPRIATE HEALTH AND SAFETY MEASURES FOR ITS EMPLOYEES AND SUBCONTRACTORS
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING SURVEY CONTROL AND VERIFYING EXISTING GRADES AND POST-EXCAVATION ELEVATIONS. GE WILL IDENTIFY LOCATION(S) AND ELEVATION(S) OF SUITABLE BENCHMARKS TO BE USED FOR SURVEY
- 3. THE DRAWINGS MAY NOT INDICATE ALL SURFACE FEATURES SUBJECT TO REPLACEMENT AS PART OF SITE RESTORATION ACTIVITIES. THIS WILL NOT RELIEVE THE CONTRACTOR FROM REMOVING AND REPLACING (IF NECESSARY) ANY AND ALL SUCH ITEMS AT NO ADDITIONAL
- 4. LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL (SHOWN OR NOT SHOWN) ABOVE AND BELOW GROUND UTILITIES AND STRUCTURES THAT MAY EXIST WITHIN THE PROJECT LIMITS PRIOR TO COMMENCEMENT OF WORK.
- 5. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANIES FOR THE TEMPORARY PROTECTION OF (AND/OR REMOVAL AND REPLACEMENT, AS NECESSARY, AS DETERMINED BY THE APPROPRIATE LITILITY COMPANY) ANY LITILITY POLES. GUY WIRES UNDERGROUND UTILITIES, AND/OR OVERHEAD WIRES THAT FALL WITHIN THE LIMITS OF
- 6. EXCAVATION LIMITS SHOWN ON THE TECHNICAL DRAWINGS REPRESENT SOILS THAT REQUIRE REMOVAL TO ACHIEVE THE NECESSARY REMOVAL ACTION OUTCOME. ADDITIONAL REMOVAL THAT MAY BE NEEDED TO FACILITATE CONSTRUCTION ACCESS, RESTORATION, ETC. HAS NOT
- 7. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO AVOID DAMAGE TO STRUCTURES THAT ARE NOT SUBJECT TO REMOVAL AND REPLACEMENT AS PART OF THIS CONTRACT. THE CONTRACTOR SHALL REPAIR ANY STRUCTURAL OR EXTERNAL DAMAGES TO SUCH STRUCTURES AT NO ADDITIONAL COST TO GE.
- 8. THE CONTRACTOR SHALL COORDINATE SITE ACTIVITIES TO MINIMIZE INFRINGEMENT UPON NORMAL TRAFFIC FLOW ON ADJACENT ROADWAYS.
- ABOVEGROUND PORTIONS OF ITEMS SUBJECT TO REMOVAL AND REPLACEMENT TO ACCOMMODATE EXCAVATION ACTIVITIES (F.G., FENCING, FTC.) MAY BE SALVAGED FOR ACCOMMODATE EXCAVATION ACTIVITIES (E.G., FENCING, ETC.) MAT BE SALVAGED FOR REUSE UPON APPROVAL BY GE OR GE'S REPRESENTATIVE. APPROVED SALVAGED MATERIALS MAY BE USED WHEN RECONSTRUCTING THESE ITEMS. BELOW-GRADE COMPONENTS AND/OR COMPONENTS THAT HAVE CONTACTED SOILS SUBJECT TO EXCAVATION SHALL BE HANDLED AND DISPOSED OF WITH THE ASSOCIATED SOILS. ALL SUCH ITEMS SHALL BE BROKEN INTO SUFFICIENTLY SMALL PIECES (IF NECESSARY) TO BE ACCEPTABLE FOR TRANSPORT AND DISPOSAL WITH THE SOILS. BELOW-GRADE COMPONENTS SHALL BE REPLACED AS PART OF SITE RESTORATION ACTIVITIES.
- 10. THE CONTRACTOR SHALL SHEAR/SHRED ALL TREES AND SHRUBS (INCLUDING ROOTS) REMOVED DURING THE PERFORMANCE OF RESPONSE ACTIONS FOR TRANSPORTATION TO AN APPROPRIATE OFF-SITE FACILITY.
- 11. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK AND APPROPRIATE EQUIPMENT FOR DUST SUPPRESSION WITHIN SOIL EXCAVATION, HAUL ROADS, AND LOADING AREAS. THESE AREAS SHALL BE WATERED BASED ON VISUAL OBSERVATIONS, THE RESULTS OF AIR MONITORING ACTIVITIES, AND/OR DIRECTION BY GE OR GE'S REPRESENTATIVE.
- 12. ON A DAILY BASIS, THE CONTRACTOR SHALL ENSURE PERIMETER AIR MONITORING (TO BE PERFORMED BY OTHERS) IS BEING PERFORMED PRIOR TO THE START OF EXCAVATION OR OTHER EXISTING SOIL HANDLING ACTIVITIES.
- 13. THE HORIZONTAL LIMITS OF EXCAVATION ACTIVITIES WILL BE PHYSICALLY DELINEATED IN THE FIELD BY THE CONTRACTOR. WITHIN THESE LIMITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXECUTING AND VERIFYING THE SPECIFIED DEPTH OR ELEVATION OF

- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSPORTING EXCAVATED/REMOVED MATERIALS TO THE APPROPRIATE OFF-SITE FACILITY.
- 15. CONTRACTOR SHALL INSTALL AN INTERIM COVER (E.G., POLYETHYLENE SHEETING) OVER WORK AREAS WHERE EXCAVATION ACTIVITIES HAVE BEEN INITIATED BUT ARE NOT YET COMPLETED. THE INTERIM COVER SHALL BE PROPERLY ANCHORED TO RESIST WIND FORCES AND PREVENT STORMWATER FROM ENTERING SUCH WORK AREAS.
- 16. DRIVEWAYS, CONCRETE SURFACES, PLANTERS AND/OR OTHER ITEMS SUBJECT TO REMOVAL AND REPLACEMENT SHALL BE RECONSTRUCTED TO SIMILAR DIMENSIONS AND APPEARANCE AS THE ORIGINAL ITEM. PAVEMENT SUBJECT TO PARTIAL REMOVAL SHALL BE REMOVED VIA SAW-CUT. RESTORATION SHALL MEET ALL LOCAL AND/OR STATE BUILDING CODES. CONTRACTOR SHALL OBTAIN ALL APPROPRIATE BUILDING PERMITS ASSOCIATED WITH
- 17. UPON BACKFILLING OF EXCAVATED AREAS, THE CONTRACTOR SHALL MAINTAIN IN PLACE OR INSTALL ADDITIONAL EROSION CONTROLS IN THE LOCATIONS INDICATED ON EACH WORK SITE DRAWING. THE EROSION CONTROLS WILL BE REMOVED BY THE CONTRACTOR WHEN REQUESTED BY GE OR GE'S REPRESENTATIVE.
- 18. BACKFILLED AND RESTORED AREAS WILL BE SUBJECT TO FINAL SURVEY VERIFICATION (BY THE CONTRACTOR) THE CONTRACTOR SHALL REPAIR ANY ITEMS THAT ARE NOT RESTORED. TO THE LOCATIONS AND/OR ELEVATIONS REQUIRED BY THIS CONTRACT.
- 19. THE CONTRACTOR SHALL RESTORE TO PRE-REMEDIATION CONDITIONS ALL SUPPORT AREAS THAT ARE IMPACTED BY REMEDIATION ACTIVITIES, INCLUDING EQUIPMENT AND MATERIALS STORAGE AREAS, SOIL LOADING AND STAGING AREAS, AND PARKING AREAS.
- 20. ALL EQUIPMENT OPERATED WITHIN THE LIMITS OF EXCAVATION SHALL BE CLEANED PRIOR TO USE OR STORAGE ELSEWHERE ON THE SITE OR TRANSPORTED OFF-SITE. A OSE OF SIDERAGE ELSEWHERE ON THE SITE OF TRANSPORTED OFF-SITE. A CONTAINED/LINED WHEEL WASH AREA SHALL BE PROVIDED BY THE CONTRACTOR TO BE USED AS NECESSARY FOR CLEANING EXCAVATION EQUIPMENT AND/OR TRANSPORTATION VEHICLES PRIOR TO THEIR REMOVAL FROM THE WORK SITE. WATER USED TO CLEAN COUPMENT SHALL BE RESTRICTED TO AND COLLECTED WITHIN A DESIGNATED EQUIPMENT CLEANING AREA. ALL SUCH WATERS SHALL BE CONTAINERIZED AND TRANSPORTED BY THE CONTRACTOR FOR ADROPORDIATE COSCORD. CONTRACTOR FOR APPROPRIATE DISPOSAL/TREATMENT.
- 21 SELECT SITE FEATURES MAY OR MAY NOT BE SHOWN ON DRAWINGS (F.G. ADDITIONAL CONCRETE PADS, MANHOLES, ETC.). CONTRACTOR SHALL PROTECT THESE FEATURES.

ORIGINAL SCALE APPLIES TO 11"X17" DRAWING rofessional Engineer's Name rof. Engineer's No. State THIS DRAWING WAS PREPARED AT THE SCALE(S) INDICATED. Project | Designed | Drawn VACCURACIES IN THE STATED SCALE(S) MAY BE INTRODUCED WHE lanager THIS DRAWING IS THE PROPERTY OF ARCADIS BBL AND MAY NOT BE REPRODUCED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PEPPINISSION OF APCADIS BBI DRAWINGS ARE RÉPRODUCED.

USE THE GRAPHIC SCALE BAR(S) TO DETERMINE THE ACTUAL ACC[°]



GENERAL ELECTRIC COMPANY * PITTSFIELD, MASSACHUSETTS REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES

GENERAL NOTES AND DETAILS

TECHNICAL DRAWINGS

ARCADIS Project Number 401.22.004)ate MARCH 2007 Arcadis BBL 6723 Towpath Road Syracuse, NY 13214

15-446-9120

Appendix C

Technical Specifications



MATERIALS AND PERFORMANCE - SECTION 02200

EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All labor, materials, services, and equipment necessary to complete the earthwork activities as depicted on the Technical Drawings and/or as directed by GE or GE's Representative.
- B. Earthwork is defined to include, but is not limited to, clearing, rough grading, excavation, trenching, handling and disposal of surplus materials, maintenance of excavations, removal of water, backfilling operations, embankments and fills, and compaction.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02207 Restoration of Surfaces
- B. Section MP-02212 Topsoil, Seeding, and Mulch
- C. RD/RA Work Plan, Section 3.3 Soil Removal Activities
- D. RD/RA Work Plan, Section 3.4 Backfilling Excavations
- E. RD/RA Work Plan, Section 5.4.5 Erosion and Sedimentation Control Measures
- F. RD/RA Work Plan, Section 5.5.1 Soil Removal and Material Handling
- G. RD/RA Work Plan, Section 5.5.3 Backfilling of Excavations
- H. RD/RA Work Plan, Section 5.6 Perimeter Air Monitoring

1.03 APPLICABLE CODES, STANDARDS AND SPECIFICATIONS

A. American Society for Testing and Materials (ASTM).

1.04 SUBMITTALS

None.

PART 2 - PRODUCTS

See following sections.

PART 3 - EXECUTION

3.01 UNAUTHORIZED EXCAVATION

- A. The Contractor shall not be entitled to any compensation for excavations carried beyond or below the lines and subgrades prescribed on the Technical Drawings. The Contractor shall refill such unauthorized excavations at its own expense and in conformance with the provisions of this section.
- B. Should the Contractor, through negligence or for reasons of its own, carry its excavation below the designated subgrade, appropriate materials specified in Section MP-02212 Topsoil, Seeding, and Mulch shall be furnished and placed as backfill in sufficient quantities to reestablish existing grades. Fill material used for backfilling shall be spread in conformance with the requirements of later subsections of this section.
- C. All material that slides, falls, or caves into the established limits of excavations due to any cause whatsoever, shall be removed and disposed of at the Contractor's expense and no extra compensation will be paid to the Contractor for any materials ordered for refilling the void areas left by the slide, fall, or cave-in.

3.02 BACKFILL MATERIALS

- A. Topsoil shall be used as specified for backfill. Requirements for off-site topsoil are specified in Section MP-02212 Topsoil, Seeding, and Mulch.
- B. Existing on-site material, designated as "native fill" or "existing soil" material shall not be used as backfill.

3.03 GENERAL BACKFILLING REQUIREMENTS

- A. Backfill shall be started at the lowest section of the area to be backfilled.
- B. Drainage of the areas being backfilled shall be maintained at all times.
- C. Areas to be backfilled shall be inspected and approved by GE or GE's Representative prior to backfilling operations. All unsuitable materials and debris shall be removed.
- D. Backfill material shall not be placed when moisture content is too high to allow proper compaction.
- E. When material is too dry for adequate compaction, water shall be added to the extent necessary.
- F. Backfill material shall not be placed on frozen ground nor shall the material itself be frozen or contain frozen soil fragments when placed.
- G. No calcium chloride or other chemicals shall be added to prevent freezing.
- H. Material incorporated in the backfilling operation that is not in satisfactory condition shall be subject to rejection and removal at the Contractor's expense.

3.04 GRADING

A. After the completion of all backfill operations, the Contractor shall grade the site to match the preexcavation lines, grades, and elevations shown on the Technical Drawings, unless otherwise directed by GE, taking into account any subsequent site restoration requirements.

3.05 EXISTING FACILITIES

A. General

- 1. Existing subsurface facilities may be encountered during construction of the work, or located in close proximity to the work.
- 2. These facilities may include, but are not necessarily limited to, sewers, drains, water mains, conduits and their appurtenances. These facilities may or may not be shown on the Technical Drawings. However, the sizes, locations, and heights or depths, if indicated, are only approximate and the Contractor shall conduct its operations with caution and satisfy itself as to the accuracy of the information given. The Contractor shall not claim nor shall it be entitled to receive compensation for damages sustained by reason of the inaccuracy of the information given or by reason of its failure to properly maintain and support such structures.
- 3. There may be other subsurface facilities, the existence and/or location of which are not known, such as individual water and gas services, electrical conduits, sanitary and storm sewer drains, etc. The Contractor shall consult with GE or GE's Representatives of such facilities and, if possible, shall determine, prior to construction, the location and depth of any such facilities that may exist in the area to be excavated.
- 4. If underground facilities are known to exist in an area but their location is uncertain, the Contractor shall exercise reasonable care in its excavation technique to avoid damage to them.
- 5. The Contractor shall notify Massachusetts DIGSAFE at least 72 hours prior to any site work.

B. Notification and Protection Procedures

- 1. Except where superseded by state or local regulations, or in the absence of any applicable regulations, the Contractor shall, at a minimum, include the following procedures in its operations:
 - a. Prior to Excavating:
 - 1) Determine correct field location of all nearby underground facilities or arrange for Representatives of the utilities to locate them.
 - Notify owners of nearby underground facilities when excavation is to take place, allowing them reasonable time to institute precautionary procedures or preventive measures which they deem necessary for protection of their facilities.

- 3) In cooperation with owners of nearby facilities, provide temporary support and protection of those underground facilities that may be especially vulnerable to damage by virtue of their physical condition or location, or those that could create hazardous conditions if damaged.
- b. Immediately notify any utility owner of any damage to its underground facilities resulting from the Contractor's operations, and arrange for repairs to be made as soon as possible.
- c. In case of any emergency the Contractor shall follow the Contingency and Emergency Procedures Plan outlined in GE's Project Operations Plan.

3.06 OTHER REQUIREMENTS

A. Unfinished work

1. When, for any reason, the work is to be left unfinished, all excavations shall be filled and all roadways and watercourses left unobstructed with their surfaces in a safe and satisfactory condition.

B. Hauling Material on Street

- 1. When hauling material over the streets or pavement, the Contractor shall provide suitably tight-sealing vehicles so as to prevent deposits on the streets or pavements. In all cases where any materials are dropped from the vehicles, the Contractor shall clean up the same as often as required to keep the crosswalks, streets, and pavements clean and free from dirt, mud, stone, and other hauled material.
- 2. When hauling materials that contain PCBs or other hazardous constituents, the Contractor shall abide by all applicable federal, state, and local codes.

C. Dust Control

1. It shall be the sole responsibility of the Contractor to control the dust created by any and all of its operations to such a degree that it will not endanger the safety and welfare of the general public.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02207

RESTORATION OF SURFACES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All types of surfaces, structures and appurtenances disturbed, damaged, or destroyed during the performance of the work under or as a result of the operations of the Contract, shall be restored and maintained, as specified herein or as directed by GE or GE's Representative.
- B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to or better than the condition of each before the work began, as approved by GE or GE's Representative.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02200 Earthwork
- B. Section MP-02212 Topsoil, Seeding, and Mulch
- C. Section MP-02600 Bituminous Concrete Pavements
- D. RD/RA Work Plan, Section 5.5.5 Restoration of Disturbed Vegetation

1.03 SUBMITTALS

A. None

1.04 SCHEDULE OF RESTORATION

- A. After an accepted schedule has been agreed upon, it shall be adhered to unless otherwise revised with the approval of GE or GE's Representative.
- B. The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the Contractor of responsibility to repair damages by settlement or other failures.

PART 2 - PRODUCTS

2.01 DESCRIPTION

- A. Any offsite topsoil shall be unfrozen, friable, natural loam and shall be free of clay lumps, brush needs, litter, stumps, stones, and other extraneous matter. The topsoil shall have an organic content between 5% and 20%, and a pH between 5.5 and 7.5.
- B. Topsoil shall be certified clean by the materials supplier.
- C. Topsoil shall have demonstrated by the occurrence of healthy crops, grass, or other vegetative growth, that it is reasonably well-drained and capable of supporting plant growth. Topsoil shall have less than 10 percent gravel by volume and be free of stones over ½-inch in diameter.

PART 3 - EXECUTION

3.01 LAWNS AND IMPROVED AREAS

- A. The area to receive topsoil shall be graded to a depth of not less than 12 inches or as specified, below the proposed finish surface.
- B. The furnishing and placing of topsoil, seed, and mulch shall be performed by the Contractor.
- C. Any washout or damage which occurs prior to or after restoring surface with topsoil, seed, and mulch shall be regraded and/or repaired as necessary by the Contractor.

3.02 SIDEWALKS

- A. In general, all sidewalks shall be constructed or reconstructed by the Contractor in accordance with the current Mass Highway Specifications of Highways and Bridges (Mass Highway Specifications). Mass Highway Specifications shall apply to the materials to be supplied and to construction procedures, except as modified herein.
- B. It shall be the Contractor's responsibility to perform all work within the prescribed temperature, moisture, and weather limitations imposed by the Mass Highway Specifications.
- C. Where new or replacement cement concrete sidewalk is to meet an existing sidewalk, the existing sidewalk shall be removed back to the first expansion or construction joint unless specified otherwise by GE or on the Technical Drawings.
- D. Any valve boxes, curb boxes, manhole covers, etc., encountered or to be located in the sidewalk area shall be adjusted so that the cover is flush with the top surface of the sidewalk. All valve boxes, etc., shall be left in such a way that the covers are easily removed and the boxes shall function in the manner in which they were intended. All covers shall be cleaned and restored to their original condition, free from concrete and asphalt.
- E. The finished grade and alignment of sidewalk replacements to match existing conditions prior to removal.
- F. New concrete walks at street intersections shall be constructed with ramps in accordance with Mass Highway Specifications.
- G. The subgrade shall be free from all bumps, depressions, standing water, roots, organic material, and all deleterious material. The subgrade shall be graded, leveled, and compacted to a smooth surface, parallel to the final surface. This subgrade shall be at a depth 10 inches below final grade for cement concrete sidewalks and at a depth 8-inches below final grade for asphalt concrete sidewalks. Except that at driveways, the subgrade shall be at an additional 2-inches in depth.
- H. The 6-inch thick subbase material shall be installed on the finished subgrade. The subbase material shall be the same material listed for pavement subbase and shall be adequately compacted.

I. Any sidewalk, constructed or reconstructed, which is subsequently damaged due to negligence or activity of work, or failure to protect surfaces from becoming marked by vehicular or pedestrian traffic, shall be removed and replaced by the Contractor at no additional cost to GE. For a period of one year after completion of the project, the Contractor shall promptly maintain, repair, and/or replace any sidewalk which settles, cracks, or becomes damaged due to settlement or defective materials or workmanship. If settlement of + ¼-inch or more as measured length or width of each square block has occurred, the sidewalk shall be removed and the subbase restored to proper grade before restoration of the surface course.

3.03 OTHER TYPES OF RESTORATION

- A. Water courses shall be reshaped to the original grade and cross-section and all debris removed. Where required to prevent erosion, the bottom and sides of the water course shall be protected.
- B. Culverts destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade. When there is minor damage to a culvert and with the consent of the GE, a repair may be undertaken, if satisfactory results can be obtained.
- C. Fences destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location.
- D. All small structures (e.g., storage sheds, swing sets, etc.) that were relocated for the excavation activities will be returned to their original location or new locations chosen by the property owner.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02212

TOPSOIL, SEEDING, AND MULCH

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work under this section consists of furnishing and placing of topsoil, fertilizer, seed, mulch, erosion control matting, and maintenance of seeded areas until final acceptance.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section MP-02200 Earthwork
- B. Section MP-02207 Restoration of Surfaces
- C. RD/RA Work Plan, Section 3.4 Backfilling Excavations
- D. RD/RA Work Plan, Section 5.5.5 Restoration of Disturbed Vegetation

1.03 SUBMITTALS

- A. Analysis of the seed (to demonstrate compliance with the seed mix identified in Section 2.01D of this specification) and fertilizer (to identify chemical composition), and proposed application rates (to demonstrate compliance with the fertilizer application rate identified in Section 3.01B of this specification).
- B. Should hydroseed be used, the Contractor shall submit all data including material and application rates and methods.
- C. Sample of topsoil to be tested by GE for chemical contaminants as discussed in this Work Plan, Section 5.4 Backfilling Excavations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Any offsite topsoil shall be unfrozen, friable, natural loam and shall be free of clay lumps, brush needs, litter, stumps, stones, and other extraneous matter. The topsoil shall have an organic content between 5% and 20%, and a pH between 5.5 and 7.5.
- B. Fertilizer shall be a standard quality commercial carrier of available plant food elements (i.e., a complete prepared and packaged material containing a minimum of 5% nitrogen, 10% phosphoric acid, and 10% potash).
 - 1. Each bag of fertilizer shall bear the manufacturer's guaranteed statement of analysis.
- C. Seed mixtures shall be of commercial stock of the current season's crop and shall be delivered in unopened containers bearing the guaranteed analysis of the mix. All seed shall meet the State standards of germination and purity.

- D. Seed mix to be used in vegetated areas shall consist of the following mixture: 65% Kentucky Blue Grass, 20% Perennial Rye Grass, and 15% Fescue. The seed mixture will be seeded at a rate of 150 pounds per acre.
- E. Mulch shall be stalks of oats, wheat, rye, or other approved crops free from noxious weeds and coarse materials.
- F. Temporary erosion control matting shall be S75 as manufactured by North American Green, or equivalent.
- G. Permanent erosion control matting shall be P300P as manufactured by North American Green, or equivalent.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. The topsoil shall be applied in a single loose lift and shall have a final minimum thickness of 12 inches. No compaction is required or allowed. Following placement of topsoil and prior to fertilizer application, all stones greater than 1-inch in diameter, sticks, and other deleterious material shall be removed.
- B. The fertilizer shall be applied to the surface uniformly at the rate of 20 pounds per 1,000 square feet.
 - 1. Following the application of the fertilizer and prior to application of the seed, the topsoil shall be scarified to a depth of at least 2 inches with a disk or other suitable method traveling across the slope if possible.
 - a. After the soil surface has been fine-graded, the seed mixture shall be uniformly applied upon the prepared surface with a mechanical spreader at a rate specified by the seed manufacturer
 - b. The seed shall be raked lightly into the surface.
 - c. Seeding and mulching shall not be done during windy weather.
 - d. Mulch (where used) shall be hand or machine spread to form a continuous blanket over the seed bed, approximately 2 inches in uniform thickness at loose measurement with a minimum of 90% surface coverage. Excessive amounts or bunching of mulch shall not be permitted.
 - e. Unless otherwise specified, mulch shall be left in place and allowed to decompose.
 - 2. Any mulch that has not disintegrated at time of first mowing shall be removed.
 - a. Seeded areas shall be watered as often as required to obtain germination and to obtain and maintain a satisfactory sod growth. Watering shall be performed in such a manner as to prevent washing out of seed and mulch.

- b. Hydroseeding may be accepted as an alternative method of applying fertilizer, seed, and mulch. The Contractor must submit all data regarding materials and application rates to GE or GE's Representative for review.
- c. Temporary and permanent erosion control matting shall be installed in accordance with manufacturer's specifications.

3.02 MAINTENANCE

- A. All erosion rills or gullies within the topsoil layer shall be filled with additional approved topsoil, graded smooth, and re-seeded and mulched.
- B. The Contractor shall also be responsible for repairs to all erosion of the seeded areas until all new grass is firmly established and reaches a height of not less than 4 inches. All bare or poorly vegetated areas must be re-seeded and mulched.

- END OF SECTION -

MATERIALS AND PERFORMANCE - SECTION 02600

BITUMINOUS CONCRETE PAVEMENTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor shall be responsible for providing all labor, equipment, and materials required for replacement of bituminous concrete paving over removed driveways or other paved areas as shown on the drawings and as specified herein.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section MP-02222 – Fill Materials

1.03 APPLICABLE CODES, STANDARDS, AND SPECIFICATIONS

- A. American Society of State Highway and Transportation Officials (AASHTO).
- B. Massachusetts Highway Department Standard Specification for Highways and Bridges (Mass Highway Specifications).

1.04 TIME OF CONSTRUCTION

A. The Contractor shall:

- 1. Apply prime and tack coats when ambient temperature is above 50°F, and when temperature has not been below 35°F for 12 hours immediately prior to application. The Contractor may not install paying when the base is wet or contains excess moisture.
- 2. Construct bituminous concrete wearing surface when surface temperature is above 42°F and when the binder is dry.
- 3. Base course may be placed when air temperature is above 32°F and rising.
- 4. Establish and maintain required lines and elevations.

PART 2 - PRODUCTS

2.01 SUBBASE COURSE

A. Subbase course material must be capable of achieving the gradation and compaction requirements as presented in Section MP-02222.

2.02 BASE COURSE AGGREGATE

A. The crushed aggregate for the bituminous concrete base course shall conform to the requirements of the Mass Highway Specifications.

2.03 BITUMINOUS BINDER

A. The binder shall be asphalt cement conforming to the requirements of AASHTO 20.

2.04 WEARING SURFACE

A. The wearing surface shall be Type 1-2. The material shall conform to quality requirements as stated in the Mass Highway Specifications.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION

- A. Remove loose matter from the compacted subbase surface immediately before applying prime
- B. Proof-roll prepared subbase to check for unstable areas and areas requiring additional compaction.
- C. Notify appropriate personnel of unsatisfactory subbase conditions. Paving work may not proceed until deficient subbase areas have been corrected and are ready to receive paving.
- D. Apply tack coat to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into asphalt concrete pavement. The Contractor shall distribute tack coat at rate of 0.05 to 0.15 gallons per square yard of surface.
- E. Allow drying of all surfaces until they are of the proper condition to receive paving.

3.02 PAVING

A. General

1. Place concrete mixture on prepared surface, spread, and strike-off. Spread mixture at minimum temperature of 225°F (107°C). Place inaccessible and small areas by hand. Place each course to required grade, cross-section, and compacted thickness.

B. Pavement Placing

1. Place in strips not less than 10 inches wide, unless otherwise acceptable to GE or GE's Representative. After strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete base course for a section before placing surface course.

C. Joints

Make joints between old and new pavements or between successive days' work, to ensure a
continuous bond between adjoining work. Construct joints to have same texture and
smoothness as other sections of bituminous concrete. Clean concrete surfaces and apply tack
coat.

3.03 ROLLING

A. General

- 1. Begin rolling when mixture will bear roller weight without excessive displacement.
- 2. Compact mixture with hot tampers or vibrating plate compactors in areas inaccessible to rollers.
- B. Breakdown Rolling Accomplish breakdown rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling and repair displaced areas by loosening and filling, if required, with hot material.
- C. Second Rolling Follow breakdown rolling as soon as possible while mixture is hot. Continue rolling until mixture has been thoroughly compacted.
- D. Finish Rolling Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until marks are eliminated and course has attained maximum density.
- E. Patching Remove and replace paving areas mixed with foreign materials and defective areas. Cut out such areas and fill with fresh, hot bituminous concrete. Compact by rolling mixture to maximum surface density and smoothness.
- F. Protection After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

- END OF SECTION -

Appendix D

Contractor Submittal Tracking Form



APPENDIX D GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES

CONTRACTOR SUBMITTAL TRACKING FORM

Item	Submittal Description	Specification Reference (see Note 2)	Date Received	Review Conducted by:		Interim	Final Status/Date	
No.				GE Project	Design	Status/Date	(see Note 1)	Notes
				Manager	Engineer	(see Note 1)	· ,	
1	Operations Plan - The Plan shall address, but not be limited to, the following items:	Section 5.3						
	List of equipment to be used onsite	Section 5.3						
	Residential property protection procedures	Section 5.3						
	Work Schedule	Section 5.3						
	The Contractor's proposed plan for controlling vehicular and pedestrian traffic during	Section 5.3						
	the performance of construction activities							
	The Contractor's qualifications package (if requested by GE)	Section 5.3						
	Stormwater (including run-on and run-off), erosion, noise, and dust control measures	Section 5.3						
	The Contractor's proposed excavation approach	Section 5.3						
	Materials handling and staging approach	Section 5.3						
	Equipment cleaning procedures	Section 5.3						
2	Health and Safety Plan - The Plan shall address, but not be limited to the following items (Refer to Note 3):	Section 5.3						
	Identification of Key Personnel (including the Contractor's Health and Safety Officer)	Section 5.3						
	Training	Section 5.3						
	Medical Surveillance	Section 5.3						
	Site Hazards	Section 5.3						
	Work Zones	Section 5.3						
	Personal Safety Equipment and Protective Clothing	Section 5.3						
	Personal Air Monitoring	Section 5.3						
	Personnel/Equipment Cleaning	Section 5.3						
	Confined Space Entry	Section 5.3						
	Material Safety Data Sheets	Section 5.3						
	Construction Safety Procedures	Section 5.3						
	Standard Operating Procedures and Safety Programs	Section 5.3						
3	Contingency Plan - The Plan shall address, but not be limited to, the following items:	Section 5.3						
	Spill prevention control and countermeasures plan for all materials brought on the work site	Section 5.3						
	Emergency vehicular access/egress	Section 5.3						
	Evacuation procedures of personnel from the work sites	Section 5.3						
	For work sites that include or are adjacent to a surface water drainage way, a flood	Section 5.3						
	control contingency plan identifying measures to protect the work site(s) and the							
	waterway from impact in the event of a high water and/or flood conditions							
	List of all contact personnel with phone numbers and procedures for notifying each	Section 5.3						
	Routes to local hospitals	Section 5.3						
	Identification of responsible personnel who will be in a position at all times to receive	Section 5.3						
	incoming phone calls and to dispatch Contractor personnel and equipment in the	Coolion 6.6						
	event of an emergency situation							
	Identification of topsoil source and location and analytical data for sample(s) collected	Section 3.4/5.3						
4		Section 3.4/3.3						
	from source (unless the source has already been approved based on previously							
	submitted analytical data).							
5	Record Drawings to document any deviations from the work specified in the herein.	Section 6.2						
	Deviations shall be noted on the Record Drawings as soon as possible following their							
	identification by the Contractor, GE, or GE's Representative.							

APPENDIX D GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS

REVISED SUPPLEMENTAL SOIL EVALUATION REPORT AND RD/RA WORK PLAN ADDENDUM FOR SELECTED PHASE 2 FLOODPLAIN PROPERTIES

CONTRACTOR SUBMITTAL TRACKING FORM

Item No.	Submittal Description	Specification Reference (see Note 2)	Date Received	Review Cor GE Project Manager	nducted by: Design Engineer	Interim Status/Date (see Note 1)	Final Status/Date (see Note 1)	Notes
6	Daily Construction Reports prepared by GE's Representative will include documentation of problems and/or deficiencies noted during construction (e.g., when construction material or activity is observed or tested that does not meet the specified requirements), and corrective action employed to address the problems or deficiencies. The documentation reports will be cross-referenced to the reports, data sheets, forms, and check lists that contain data or observations leading to the determination of a problem or deficiency.							
7	Topsoil, Seeding, and Mulch - Analysis of the seed and fertilizer, and proposed application rates.	Materials and Performance Section 02212 (1.03)(A)						
8	Topsoil, Seeding, and Mulch - Should hydroseed be used, the Contractor shall submit all data including material and application rates.	Materials and Performance - Section 02212 (1.03)(B)						
9	Topsoil, Seeding, and Mulch - Sample of topsoil to be tested by GE for chemical contaminants as discussed in this Work Plan.	Materials and Performance Section 02212 (1.03)(C)						

Notes:

- 1. Submittal status nomenclature is as follows:
 - R Reviewed
 - N Reviewed and noted
 - S Resubmit
 - J Rejected
- 2. All Section, Specification, and Drawing references are to the Revised Addendum to Pre-Design Investigation/Soil Evaluation Report and Conceptual RD/RA Work Plan for the Phase 2 Floodplain Properties (BBL, March 2007).
- 3. The Health and Safety Plan is required for GE record-keeping purposes only and therefore GE will conduct a review of the plan for completeness only. Determination of the appropriate level of worker safety, equipment, and procedures based on site conditions must be made by the Contractor based on site visits, review of available information, and anticipated site activities.
- 4. Shaded item numbers indicate submittals required by GE but not subject to submittal to EPA.

Appendix E

Ambient Air Monitoring Program



SCOPE OF WORK

for

Ambient Air PCB & Particulate Monitoring at Selected Phase 2 Floodplain Properties

General Electric Company Pittsfield, Massachusetts

Prepared by

Berkshire Environmental Consultants, Inc. 1450 East Street Pittsfield, MA 01201

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1.0 INTRODUCTION

This Scope of Work (SOW) describes ambient air monitoring for polychlorinated biphenyls (PCBs) and particulate matter which will be conducted during soil remediation actions at certain Phase 2 Floodplain Properties adjacent to the 1½ Mile Reach of the Housatonic River in Pittsfield, Massachusetts. Remediation activity will be taking place at Parcels I8-4-2, 3, 4, I8-4-7, and Parcel I8-4-201/202. These properties are located east of Deming Street along the west bank of the East Branch of the Housatonic River.

2.0 SAMPLING OBJECTIVE

The objectives of this sampling program are two-fold:

- 1. To obtain valid and representative data on ambient levels of PCBs around the remedial site before and during remedial activities to insure that the activities are not causing an unacceptable increase in ambient air concentrations of PCB.
- 2. To obtain valid and representative data on ambient levels of particulate around the remedial site before and during soil remediation activities to insure that the remedial activities are not causing an unacceptable increase in ambient air concentrations of particulate.

3.0 SITE ACTIVITY

As described in the Revised Phase 2 RD/RA Work Plan Addendum, the on-site activities to be performed at the Phase 2 Floodplain Properties include the performance of soil removal/replacement at the properties discussed above. It is anticipated that the remediation activities described in the Revised Phase 2 RD/RA Work Plan Addendum will be performed in one continuous phase of work, which is expected to last approximately 1-2 weeks. Performance of the remediation work presented in the Revised Phase 2 RD/RA Work Plan Addendum is subject to review and approval by the United States Environmental Protection Agency (EPA).

This ambient air monitoring program includes particulate and PCB monitoring during soil remediation activities.

4.0 PCB MONITORING PROGRAM

4.1 High Volume PCB Sampling

The high volume PCB sampling program will include the following elements:

High-Volume Monitoring Locations 2
Background Sites 1
Co-Located Sites (Field Duplicates) 1

Sampling Time 24 hours per sampling event

Sampling Period Duration of soil remediation activity

Frequency of Sampling Once prior to the onset of soil

remediation activity and once during

remediation activity¹

No. of Blanks Per Sampling Event

Sampling Method EPA Compendium Method TO-4A Analytical Method GC/ECD or GC/MS as described in

EPA Method TO-4A

Ambient air monitoring for PCBs will be conducted during soil remediation activities. Sampling will be conducted for one 24-hour period prior to the initiation of remediation and one 24-hour PCB during the soil remediation activity. The ambient air monitoring frequency for PCBs may be increased to bi-weekly in the event that ambient particulate concentrations at any one location consistently exceed the proposed particulate notification level (i.e. >120 $\mu g/m^3$). "Consistently exceeding" will be defined as concentrations greater than 120 $\mu g/m^3$ on three consecutive 10-hour days or 5 days in any two-week period.

PCB background monitoring will be conducted prior to any on-site soil remediation activity at two locations on the perimeter of the removal action area for these properties, between the proposed areas of excavation and adjacent receptors. During soil remediation activity, PCB monitoring will be conducted at two locations on the perimeter of the removal action area and one residential background location on Longfellow Avenue in Pittsfield, Massachusetts. Preliminary monitoring sites have been identified for the soil remediation activity, as shown on Figure E-1. Monitoring locations P2-1 and P2-2 will be utilized for PCB monitoring before and during soil removal activities on Parcels I8-4-2, 3, 4, I8-4-6, and I8-4-201/202. These locations may be adjusted north or south to the most representative locations during construction activities. The locations will be noted and reported in the final project report.

The preliminary locations of the monitors were selected based firstly on the location of potential receptors and the location of site activity, and secondly on both wind

Sampling frequency may be increased if either PCB or particulate monitoring levels exceed threshold values.

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direction and the presence of obstructions and other influences that may adversely affect the representativeness of the data. The areas of excavation at these floodplain properties are relatively small. The predominant wind direction is west-northwest based on five-and ten-year wind rose data from the Albany, New York National Weather Service station. Data from the GE-owned station at the GE facility in Pittsfield, MA and data from a weather station at the Pittsfield airport also demonstrate a predominant WNW wind direction; however, the data from the local stations show that the local wind direction and speed vary considerably. Since the potential receptors at these properties are west of the excavation areas and east of Deming Street, air monitors have generally been placed in locations that provide adequate coverage between the areas of construction and potential receptors regardless of wind direction. No monitors will be placed east of construction activities, since the amount of time required to complete the project will likely be small due to the size of the excavation areas, and because the Housatonic River is between work areas and any potential receptors east of these locations.

The specific sampling locations for monitors may be modified based on the location and nature of the soil remediation activity, predominant wind direction, the location of potential receptors, physical obstructions (i.e. trees, buildings), the availability of power, site security, site accessibility, etc. Any significant modifications to the locations of monitors will be reviewed with the GE Project Manager.

The detection limit (DL) for PCB analysis of the high volume samples will be $0.0003 \,\mu\text{g/m}^3$, in consideration of the following:

Avg. Sampling Rate	$0.225 \text{ m}^3/\text{min.}$
Avg. Sample Volume	324 m ³ /PUF
Analytical DL	0.1 μg/PUF
Project DL	$0.0003 \mu g/m^3$

The sampling method to be used for PCBs in the high volume samples is US EPA Compendium Method TO-4A, <u>Determination of Pesticides and Polychlorinated Biphenyls in Ambient Air Using High Volume Polyurethane Foam (PUF) Sampling Followed by Gas Chromatographic/Multi-Detector Detection (GC/MD).</u> This method employs a modified high volume sampler consisting of a glass fiber filter with a polyurethane foam (PUF) backup absorbent cartridge to sample ambient air at a rate of 0.225 m³/min. A General Metal Works Model GPS-1 Sampler or equivalent will be used. The filter and cartridge will be placed in clean, sealed containers and returned to the laboratory for analysis.

Procedures for sample media preparation and calibration of the sampling system are specified in Method TO-4A. TO-4A further specifies procedures for calculation and data reporting, and the assessment of data for accuracy and precision.

The samplers will be monitored at six-hour intervals over each 24-hour sampling

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period. During these six-hour checks, barometric pressure, temperature, and magnehelic pressure readings will be taken and the air flow adjusted to the target flow rate, as necessary. At the end of the sampling period, the sampling modules containing the fiber filters and PUF adsorbents will be removed from the samplers. Each glass fiber filter will be folded and placed on the PUF adsorbent for that sample and each sample consisting of a fiber filter and PUF adsorbent (inside a glass cartridge) will be wrapped in hexane rinsed aluminum foil. Each fiber filter and PUF adsorbent set will be labeled as one sample. The samples will be wrapped, packaged in blue ice and sent under chain-of-custody to the laboratory for analysis.

The PCB sampling probe height for all high volume monitors will be approximately 2.0 meters above the ground. This height is adequate to represent the breathing zone and to be above the influence of ground activity around the monitor. The location of the samplers will be in conformance, to the extent practical, with the siting requirements for ambient monitors in <u>Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)</u>, U.S. EPA. May, 1987.

4.2 Analytical Procedures

In the high volume samples, the PCBs will be recovered by Soxhlet extraction with 10% diethyl ether in hexane. The extracts will be reduced in volume using Kuderna-Danish (K-D) concentration techniques and subjected to column chromatographic cleanup. The extracts will be analyzed for PCBs using gas chromatography with either electron capture detection (GC/ECD) or mass spectrometry detection (GC/MS) as described TO-4A.

The samples will be analyzed for the following PCB Aroclors: PCB-1016, PCB-1221, PCB-1232, PCB-1242, PCB-1248, PCB-1254 and PCB-1260.

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5.0 PARTICULATE MONITORING

Ambient air monitoring for particulate matter will be conducted during all soil remediation activities. Specifically, real-time ambient particulate monitoring will be performed during all active on-site soil remediation activities. Such monitoring will be conducted at two on-site locations, which may vary slightly as site activities progress, and at one residential background location on Longfellow Avenue in Pittsfield, Massachusetts. Preliminary monitoring sites have been identified on Figure E-1 (see the discussion of monitoring locations in Section 4.0 of this Scope of Work). The specific locations for stations will be selected based on the location and nature of the soil remediation activities, predominant wind direction, location of potential receptors, availability of power, site accessibility, and site security.

At the background and at least one on-site location, real-time particulate monitoring will be performed using a MIE dataRAM Model DR-2000/4000 real time particulate monitor, a MetOne E-BAM monitor, or equivalent. Each Model DR-2000/4000 monitor is equipped with a temperature conditioning heater and in-line impactor head to monitor and record particulate concentrations with a mean diameter less than 10 micrometers (PM₁₀). The MetOne E-BAM uses beta attenuation as a measurement technique. The mass of suspended particulate is measured by the decrease in the number of beta particles passed over a particulate filtering medium due to absorption by the particulate. At the remaining on-site location, real-time particulate monitoring will be performed using one of the two previously mentioned monitors or a MIE dataRAM Model pDR-1000 monitor. Particulate monitoring will typically be conducted at all sites for approximately 10 hours daily, from 7 a.m. to 5 p.m., during soil remediation activities. Additional site activities may warrant a longer monitoring period. Particulate data will be recorded and averaged by the instruments' dataloggers every 15 minutes.

Calibrations and maintenance will be conducted at the frequency and in accordance with the procedures recommended by the manufacturer. All calibrations will be recorded.

6.0 QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

Quality assurance and quality control (QA/QC) procedures for the PCB air sampling program follow those described in the Ambient Air Monitoring Plan contained in the GE Project Operations Plan (AAMP/POP) and Method TO-4A. Quality assurance and quality control for the particulate sampling will be based on manufacturer's recommendations.

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7.0 PCB SAMPLE DOCUMENTATION, HANDLING AND SHIPMENT

Each filter holder and PUF cartridge holder will be pre-marked with a permanent identification number. As each sample is collected, it will be recorded on a field data form along with the date, time and location of collection.

All samples will be securely wrapped for shipment. PCB samples will be preserved at 4°C and shipped on ice. Samples will be shipped under chain-of-custody by commercial overnight carrier or courier to the analytical laboratory. Complete details on the PCB sample shipment procedures are contained in the AAMP/POP.

8.0 METEOROLOGICAL MONITORING

Hourly meteorological data from the Automated Surface Observation System (ASOS) Monitor operated at the Pittsfield Municipal Airport in Pittsfield, Massachusetts will be included with the sampling results. This ASOS Monitor is operated by the National Weather Service, Federal Aviation Administration, and the Department of Defense. The ASOS Monitor measures and records wind speed, wind direction, precipitation, temperature, sky conditions, barometric pressure, and relative humidity.

9.0 DOCUMENTATION AND REPORTING

Particulate data will be summarized and reported to the GE Project Manager and the ARCADIS BBL (ABBL) Project Manager. If there is an exceedance of a reporting threshold, GE will be notified as soon as possible. All field and laboratory data recorded during ambient monitoring will be documented according to the procedures in the AAMP/POP. A written report summarizing the results will be provided to GE and ABBL after the conclusion of sampling and will include the following:

Date and Time of Sampling
Sampling Locations
Calibration and Maintenance Activities
Pollutants Monitored
Number of Samples Collected
Analytical Results
Quality Assurance Assessment
Meteorological Data Summary
Discussion of Problems or Disruptions

10.0 ACTION LEVELS

10.1 *PCBs*

The notification and action levels for PCB concentrations in ambient air are $0.05 \,\mu g/m^3$ (24-hour average) and $0.1 \,\mu g/m^3$ (24-hour average), respectively. These are the same levels established by EPA for other remediation activities at the GE-Pittsfield/Housatonic River Site.

If the $0.05~\mu g/m^3$ notification level is exceeded, GE will notify EPA promptly, but no later than 24 hours after receipt of the data showing such an exceedance, and will provide written notice within 72 hours after receipt of the data. If such an exceedance occurs, GE will implement additional response actions, in consultation with EPA, to prevent an exceedance of the action level. The actions to be considered in such circumstances will include those previously implemented by GE at other areas at the GE-Pittsfield/Housatonic River Site (e.g., increased frequency of monitoring, establishment of additional monitoring locations, increased use of dust suppression measures, modifications to dust-producing activities).

If the action level of $0.1~\mu\text{g/m}^3$ is exceeded, GE will: (a) notify EPA immediately upon receipt of the data showing such an exceedance; (b) temporarily cease ongoing excavation activities; (c) discuss with EPA appropriate immediate or short-term response actions to address the exceedance; and (d) provide written notice to EPA within 72 hours after receipt of the data. In addition, GE will evaluate the cause of the exceedance and the need for additional engineering controls, discuss that evaluation with EPA, and if warranted, propose to EPA appropriate engineering controls or other corrective actions. EPA approval of appropriate response actions and engineering controls, if proposed, will be required before GE resumes excavation activities.

10.2 Particulate Matter

For each day of monitoring, the average 10-hour PM_{10} concentration at any onsite monitor will be compared with the notification level of $120 \,\mu g/m^3$ – which represents 80 percent of the current 24-hour National Ambient Air Quality Standard (NAAQS) for PM_{10} (150 $\mu g/m^3$). This notification level has been selected to allow notice to GE before concentrations reach the level of the 24-hour NAAQS (the action level).

Any exceedance of the notification level will be reported to EPA as soon as practicable following receipt of data showing the exceedance, and a written notice will be provided within 72 hours after receipt of the data. If such an exceedance occurs, GE will take appropriate steps to prevent an exceedance of the action level and will discuss with EPA the need for and type of additional response measures. The actions to be considered in these circumstances will include the same types of measures listed above for exceedances of the notification level for PCBs, or other appropriate measures.

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In the event that any 10-hour average PM_{10} concentration at an on-site monitor exceeds the level of the NAAQS for PM_{10} (the action level), GE will: (a) report such exceedance to EPA immediately following receipt of data showing the exceedance; (b) temporarily cease ongoing excavation activities; (c) discuss with EPA appropriate immediate or short-term response actions to address the exceedance; and (d) provide written notice to EPA within 72 hours after receipt of the data. In addition, GE will evaluate the cause of the exceedance and the need for additional engineering controls, discuss that evaluation with EPA, and propose to EPA appropriate engineering controls or other corrective actions. EPA approval of appropriate response actions and engineering controls, if proposed, will be required before GE resumes excavation activities.

